Middlebury Coll

AMERICAN

RAILROAD JOURNAL.

STEAM NAVIGATION, COMMERCE, MINING, MANUFACTURES.

HENRY V. POOR, *Editor.*

ASSISTANT EDITORS:
JAMES T. HODGE, *For Mining and Metallurgy.*
CHARLES T. JAMES, *For Manufactures and the Mechanic Arts.*
M. BUTT HEWSON, *For Civil Engineering.*

SATURDAY, APRIL 13, 1850.

Second Quarto Series, Vol. VI., No. 15.---Whole No. 730, Vol. XXIII.

ESTABLISHED IN 1831.

NEW-YORK:
PUBLISHED WEEKLY, BY
JOHN H. SCHULTZ & CO.
Room 12, Third Floor,
No. 136 Nassau Street.

FARMERS! ATTENTION!!

John Mayher & Co's

NEW AGRICULTURAL WAREHOUSE AND SEED STORE,

197 WATER STREET, NEW YORK.

Where they have for Sale, the largest and most complete assortment of Farming Implements, ever offered for sale in this city—all of which they will sell 10 per cent. Cheaper than the same kind of Goods can be bought at any other house in the city. Our Goods are all Warranted to give satisfaction.

FARMERS wanting to purchase, will please call and examine our *Stock* before buying elsewhere.

Among our assortment may be found the Celebrated Highest Premium Eagle Ploughs! together with all the most approved Ploughs now in use.

Also,—Horse Powers, Threshing Machines, Fan Mills, Corn Shellers, Straw Cutters, Corn Mills, Seed Sowers, Churns, Ox Yokes, Ox Scrapers, Hay Rakes, Horse Rakes, Patent Chain Pump (that never freezes nor rusts), and other Pumps; in fact we have everything for Farming Purposes—together with Guano, Bone Dust and other Fertilizers.

JOHN MAYHER & CO.,
197 Water st., N. Y.

February 9, 1850.

N.B.—J. M. & Co. also continue their Old Stand, at 195 Front street, near Fulton Market.

STABILITY—SECURITY—PERPETUITY.

Mutual Life Insurance Co. of New York.

No. 35 WALL STREET.

A MILLION OF DOLLARS

Securely invested in Bonds and Mortgages on real estate in this city and Brooklyn, and stocks of the State and City of New York and United States Government.

This fund is rapidly increasing, by a widely extended and prosperous business.

The company declared a dividend of profits of fifty-two per cent. on all existing policies on the 31st of January, 1848.

All the Profits are Divided Among the Insured.

The premiums are payable in Cash annually, semi-annually, or quarterly, interest being added on the deferred payments.

The cash principle adopted by this company secures to the parties for whose benefit the insurances are effected, the whole of the advantages, without subjecting them to the heavy drawback of accumulated premium notes.

Persons may effect insurance on their own lives and the lives of others.

A married woman can insure the life of her husband, the benefits of which are secured by law for the exclusive use of herself or children.

Clergymen and all others dependent upon salaries or their daily earnings are specially invited to avail themselves of a resource whereby their surviving families may be secured from the evils of penury.

Pamphlets explanatory of the principles of Mutual Life Insurance, and illustrating its advantages, with forms of application, may be obtained at the office of the company, 35 Wall street, or of any of its agents.

TRUSTEES.

Jos. B. Collins,	David C. Colden,
Wm. J. Hyslop.	Alfred Edwards,
R. H. McCurdy,	Wm. Betts,
Fred. S. Winston,	Joseph Blunt,
C. W. Faber,	Isaac G. Pearson,
John P. Yelverton,	Henry Wells,
Theo. Sedgwick,	Wm. Moore,
Stacy B. Collins,	Zebedee Cook,
John H. Swift,	Jona. Miller,
John Wadsworth,	David A. Comstock,
S. M. Cornell,	Robert Schuyler,
Gouv. M. Wilkins,	James Chambers,
John V. L. Pruyn,	Joseph Tuckerman,
Fred. Whittlesey,	Moses H. Grinnell,
Charles Ely,	Wm. J. Banker,
John C. Cruger,	Eugene Dutilh,
Walter Joy,	Francis S. Lathrop,
Alfred Pell,	John C. Thatcher.

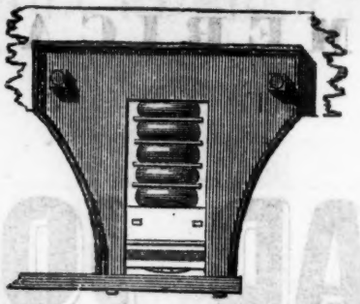
JOSEPH. B. COLLINS, President.
ISAAC ABBATT, Secretary. 3m9

Railroad Instruments.

THEODOLITES, TRANSIT COMPASSES, and Levels, with Fraunhoffers Munich Glasses, Surveyor's Compasses, Chains, Drawing Instruments, Barometers, etc., all of the best quality and workmanship, for sale at unusually low prices, by

E. & G. W. BLUNT,
No. 179 Water St., cor. Burling Slip,
New York, May 19, 1849.

FULLER'S PATENT INDIA RUBBER SPRING.



THESE SPRINGS ARE THE CHEAPEST, the lightest and most durable of any yet known. They are easily applied to new or old cars, and there is small possibility of any accident occurring to them.

Other parties through Mr. Ray set up claims to an India Rubber Spring which, though the same in principle, is very inferior in its working and durability.—Actions are in progress for an Infringement on Fuller's Patent against parties using that Spring.

The superiority of Fuller's Spring over that claimed by Mr. Ray is fully established and has frequently been testified to. The following are from gentlemen who have had much experience with both Springs.

—

"It will afford me pleasure to recommend your springs to the companies in this region, in preference to Ray's which I am confident are inferior in mechanical arrangement to yours." JOHN M'RAE,
Engineer S. Carolina R. R., Charleston.

—

"I do not hesitate to allow you to say that I concur in Mr. M'Rae's opinion that Ray's springs are inferior in mechanical arrangement to Fuller's. I repeatedly expressed that opinion long before Mr. M'Rae had seen your springs (as I believe) and entertain it still." WM. PARKER,
Gen'l Supt. of Baltimore and Ohio R. R.

—

Office of Sup't Norwich & Worcester R.R Co.
December 26, 1849.

"I most fully concur in the opinion of Jno. McRae, Engineer of S. Carolina Railroad, that 'Rays Springs are inferior to Fuller's Springs;' and shall with pleasure recommend them to all Railroad Companies for adoption. I have used both springs on this road and have no hesitation in saying that I should in all cases prefer Fuller's Spring."
SAM'L H. P. LEE, JR.,
Sup't and Engineer.

—

Office B. & P. R. R. Co.,
Boston, 20th December, 1849.

"This company have cars fitted up with both Ray's and Fuller's 'Metallic India Rubber Springs,' and I do not hesitate to say that Fuller's arrangement is *very much superior* to Ray's.
W. RAYMOND LEE, Supt.

—

The following result has been obtained by experiment upon one railroad.

A set of Trucks fitted with Steel Springs cost	$190·77	and weigh	2355 lbs.
The same with Fuller's Springs, . . .	131·71	"	1911 lbs.
Difference, . .	$59·06	"	444 lbs.

Not only is there an advantage in the cost, but owing to the great reduction in weight, the car can be made lighter throughout, and so an enormous saving in weight may be effected in a Train.

G. M. KNEVITT, 38 Broadway, N. Y.,
General Agent for the U. S.

The Springs can also be had of
JAMES LEE & CO., 18 India Wharf, Boston, &
JAS. THORNLEY, 110 Chestnut St., Philad.
January 2, 1850.

American Cast Steel.

THE ADIRONDAC STEEL MANUFACTURING CO. is now producing, from American iron, at their works at Jersey City, N.J., Cast Steel of extraordinary quality, and is prepared to supply orders for the same at prices below that of the imported article of like quality. Consumers will find it to their interest to give this a trial. Orders for all sizes of hammered cast steel, directed as above, will meet with prompt attention.
May 26, 1849.

NOTICE TO

Superintendents of Railroads.

TYLER'S PATENT SAFETY SWITCH.—The undersigned would respectfully call their attention to his Patent Safety Switch, which from long trial and late severe tests has proved itself perfectly reliable for the purpose for which it was intended. It is designed to prevent the train from running off when the switch is set to the wrong track by design or accident. The single rail or gate switch is established as the best and safest switch for the ordinary purpose of shifting cars from one track to another, but it is liable to the serious evil of having one track open or broken when connected with the other. My improvement entirely removes this evil, and while it accomplishes this important office, leaves the switch in its original simplicity and perfection of a plain unbroken rail, connecting one track with the other ready for use.

The following decision of the Commissioner of Patents is respectfully submitted to Railroad Engineers, Superintendents, and all others interested in the subject. P. B. TYLER.

(COPY.)

UNITED STATES PATENT OFFICE,
Washington City, D.C., April 28th, 1846.

SIR: You are hereby informed that in the case of the interference between your claims and those of Gustavus A. Nicolls, for improvements in safety switches—upon which a hearing was appointed to take place on the 3d Monday in March, 1846, the question of priority of invention has been decided in your favor. Inclosed is a copy of the decision. The testimony in the case is now open to the inspection of those concerned.

Yours respectfully, EDMUND BURKE,
Commissioner of Patents.

To Philos B. Tyler.

Any further information may be obtained by addressing P. B. TYLER, Springfield, Mass., or JOHN PENDLETON, Agent, 149 Hudson St., New York.

PHILADELPHIA CAR MANUFACTORY,

CORNER SCHUYLKILL 2D AND HAMILTON STS.,
SPRING GARDEN, PHILADELPHIA CO., PA.

Kimball & Gorton,

Having recently constructed the above works, are prepared to construct at short notice all kinds of

RAILROAD CARS, Viz:

Passenger Cars of all classes—Open and Covered Freight and Express Cars—Coal Cars—Hand Cars & Trucks of all descriptions.

They are also prepared to furnish Chilled Wheels of any pattern. Car Wheels & Axles fitted and furnished. Snow Ploughs and Tenders made to order. Steel and other Springs always on hand.

All orders will be filled at short notice, and upon as good terms as at any other establishment in the country.

Omnibuses from the Exchange run within one square of the manufactory every 10 minutes during the day.

Philadelphia, June 16, 1849. 1y25

C. W. Bentley & Co,

IRON Founders, Portable Steam Engine Builders and Boiler Makers, Corner Front and Plowman Sts., near Baltimore St. Bridge,

BALTIMORE, MARYLAND.

Their Engines are simple in their construction, compact and durable; they require no brick work in setting them, and occupyidg but a small space (a six horse power engine and boiler, standing on a cast iron plate of three by six feet.)

They also manufacture Major W. P. Williamson's new oscillating Engine; a superior article, combining cheapness and simplicity (one of which may be seen in operation at their shop.) Both of these engines are adapted to any purpose where power is required, and may be made of any capacity; and for economy in use of fuel are unsurpassed.

All kinds of machinery made to order. Steam Generators, Force Pumps, Wrought Iron Pipes and Fillings for Steam, Water, Gas, etc., constantly on hand,

Baltimore, June 6, 1849.

CORROSIVE SUBLIMATE.

THIS article now extensively used for the preservation of timber, is manufactured and for sale by POWERS & WEIGHTMAN, manufacturing Chemists, Philadelphia.

Jan. 20, 1849.

Coal.

CUMBERLAND SEMI-BITUMINOUS COAL superior quality for Locomotives, for sale by

H. B. TEBBETTS,
No. 40 Wall St., New York.
May 12, 1849. 1m19

IRON BRIDGES, BRIDGE & ROOF BOLTS, etc. STARKS & PRUYN, of Albany, New York. having at great expense established a manufactory with every facility of Machinery for Manufacturing Iron Bridges, Bridge and Roof Bolts, together with all kinds of the larger sizes of Screw Bolts, Iron Railings, Steam Boilers, and every description of Wrought Iron Work, are prepared to furnish to order, on the shortest notice, any of the above branches, of the very best of American Refined Iron, and at the lowest rates.

During the past year, S. & P. have furnished several Iron Bridges for the Erie Canal, Albany Basin, etc. —and a large amount of Railroad Bridge Bolts, all of which have given the most perfect satisfaction.

They are permitted to refer to the following gentlemen:

Charles Cook, Nelson J. Beach, Jacob Hinds,	Canal Commissioners of the State of New York.
Willard Smith, Esq.,	Engineer of the Bridges for the Albany Basin.
Messrs. Stone & Harris,	Railroad Bridge Builders, Springfield, Mass.
Mr. Wm. Howe,	
Mr. S. Whipple,	Engineer & Bridge Builder, Utica, N. Y.

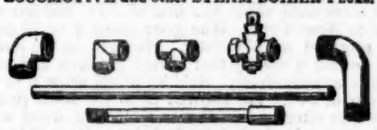
January 1, 1849.

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to ⅛ in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T's, L's, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by

MORRIS, TASKER & MORRIS.

Warehouse S. E. Corner of Third & Walnut Streets,

PHILADELPHIA.

To Railroad Companies, etc.

The undersigned has at last succeeded in constructing and securing by letters patent, a Spring Pad-lock which is secure, and cannot be knocked open with a stick, like other spring locks, and therefore particularly useful for locking Cars, and Swiches, etc.

Companies that are in want of a good Pad-lock, can have open samples sent them that they may examine and judge for themselves, by sending their address to C. LIEBRICH,

46 South 8th St., Philadelphia.

November 3, 1849. 6m*

Mattewan Machine Works.

THE Mattewan Company have added to their Machine Works an extensive LOCOMOTIVE ENGINE department, and are prepared to execute orders for *Locomotive Engines* of every size and pattern—also *Tenders, Wheels, Axles,* and other railroad machinery, to which they ask the attention of those who wish such articles, before they purchase elsewhere.

STATIONARY ENGINES, BOILERS, ETC., Of any required size or pattern, arranged for driving *Cotton, Woollen, or other Mills,* can be had on favorable terms, and at short notice.

COTTON AND WOOLLEN MACHINERY, Of every description, embodying all the modern improvements, second in quality to none in this or any other country, made to order.

MILL GEARING,

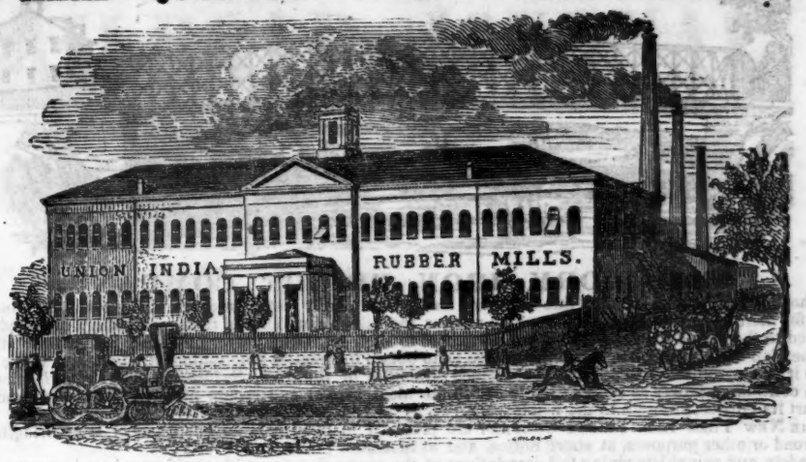
Of every description, may be had at short notice, as this company has probably the most extensive assortment of patterns in this line, in any section of the country, and are constantly adding to them.

TOOLS.

Turning Lathes, Slabbing, Planing, Cutting and *Drilling Machines,* of the most approved patterns, together with all other tools required in machine shops, may be had at the Mattewan Company's Shops, Fishkill Landing, or at 66 Beaver street, New York.

WM. B. LEONARD, *Agent.*

☞ HEAD QUARTERS FOR RUBBER GOODS. ☜



The Union India Rubber Company,

MANUFACTURERS AND DEALERS IN EVERY VARIETY OF

GOODYEAR'S PATENT METALLIC RUBBER FABRICS,

Which they offer on the most liberal terms at their Warehouse,

NO. 19 NASSAU STREET, NEW YORK.

Articles which this Company has the exclusive right to make comprise in part

Beds,	Overcoats,	Life Preservers,	Mail Bags,	Camp Blankets,
Pillows,	Leggins,	Boat Floats,	Breast Pumps,	Travelling Bags,
Cushions,	Syringes,	Souwesters,	Saddle Bags,	Wading Boots,
Caps,	Canteens,	Gun Cases,	Clothing of all kinds,	Horse Covers,
Tents,	Buoys,	Portable Boats,	Carriage Cloth, assor.	Piano Forte Covers,
Bottles,	Maps,	Horse Fenders,	Hospital Sheeting,	Railroad Gum,
Tubs,	Sheet Gum,	Water Tanks,	Mattrass Covers,	Hose, all kinds,
Caps,	Tarpaulins,	Army Goods,	Bathing Caps,	Shower Baths,
Pants,	Life Jackets,	Navy Goods,	Baptismal Pants,	Chest Expanders.

Together with *all new applications of the Patent Rubber,* which with Boots and Shoes, Packing, Machine Belting, Suspenders, Gloves and Mittins, Tobacco Wallets, Balls, Baby Jumpers, Elastic Bands, etc., etc., will be sold to the Trade at Factory prices.

⁂ All orders for special articles to be manufactured, should be accopanied with full descriptions and drawings.

October 20, 1849.

ETNA

SAFETY FUSE.

THIS superior article for igniting the charge in wet or dry blasting, made with DUPONT'S best powder, is kept for sale at the office and depot of

REYNOLDS & BROTHER,

☞ *Sole Manufacturers,* ☜

No. 85 Liberty St.

NEW YORK.

And in the principal cities and towns in the U. States.

☞ The Premium of the AMERICAN INSTITUTE was awarded to the *Etna Safety Fuse* at the late Fair held in this city.

November 3, 1849. 1y

RAILROAD
India-rubber Springs.

IF any Railroad Company or other party desires it, the NEW ENGLAND CAR COMPANY will furnish India-rubber Car Springs made in the form of washers, with metalic plates interposed between the layers, or in any other form in which they can be made; in all cases guaranteeing the right to use the same against any and all other pretended rights or claims whatsoever.

F. M. Ray, 98 Broadway, New York.
E. CRANE, 99 State Street, Boston.
1849.

DEAN, PACKARD & MILLS,

MANUFACTURERS OF ALL KINDS OF

RAILROAD CARS,

SUCH AS

PASSENGER, FREIGHT AND CRANK CARS,

— ALSO —

SNOW PLOUGHS AND ENGINE TENDERS OF VARIOUS KINDS.

CAR WHEELS and AXLES fitted and furnished at short notice; also, STEEL SPRINGS of various kinds; and

SHAFTING FOR FACTORIES.

☞ *The above may be had at order at our Car Factory,*

REUEL DEAN,
ELIJAH PACKARD, } SPRINGFIELD, MASS.
ISAAC MILLS,

1y48

Iron Safes.

FIRE and Thief-proof Iron Safes, for Merchants, Banks and Jewelers use. The subscriber manufactures and has constantly on hand, a large assortment of Iron Safes, of the most approved construction, which he offers at much lower rates than any other manufacturer. These Safes are made of the strongest materials, in the best manner, and warranted entirely fire proof and free from dampness. Western merchants and the public generally are invited to call and examine them at the store of E. Corning & Co., sole agents, John Townsend, Esq., or at the manufactory.

Each safe furnished with a thief-detector lock, of the best construction.

Other makers' Safes repaired, and new Keys and Locks furnished at the shortest notice.

H. W. COVERT
cor. Steuben and Water sts. Albany.

August 24, 1848.

NEW YORK IRON BRIDGE COMPANY.

The Bridges manufactured by this Company having been fully tested on different Railroads, by constant use for more than two years, and found to answer the full expectations of their most sanguine friends, are offered to the public with the utmost confidence as to their great utility over any other Bridge now known.

The plan of this Bridge is to use the iron so as to obtain its greatest longitudinal strength, and at the same time it is so arranged as to secure the combined principles of the *Arch, Suspension and Triangle*, all under such controlling power as causes each to act in the most perfect and secure manner, and at the same time impart its greatest strength to the whole work.

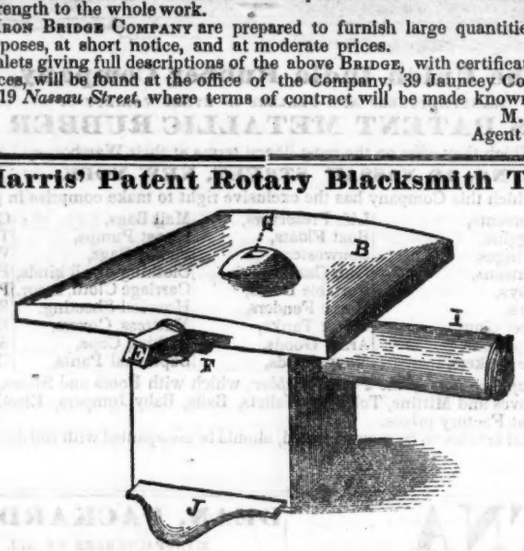
THE NEW YORK IRON BRIDGE COMPANY are prepared to furnish large quantities of Iron Bridging for Railroad or other purposes, at short notice, and at moderate prices.

Models, and pamphlets giving full descriptions of the above BRIDGE, with certificates based on actual trial from undoubted sources, will be found at the office of the Company, 39 Jauncey Court, Wall st., or of W. RIDER & BROTHERS, 19 *Nassau Street*, where terms of contract will be made known, and where orders are solicited.

M. M. WHITE,
Agent for the Company.

August 29, 1849.

E. Harris' Patent Rotary Blacksmith Tuyere.



LETTERS Patent were issued January 9, 1849, to E. HARRIS, of Springfield, for an Improved Rotary Blacksmith Tuyere. Since that time there have been some hundreds put in operation, giving satisfaction and full proof of superiority over all others.

This Tuyere is so arranged that by one movement it can be changed from the largest work to the smallest; at the same time the fire is changed in proportion, thereby making a great saving in coal. Words cannot convey the full merits of this Tuyere; nor is it deemed necessary to speak in disparagement of other Tuyeres, as every smith is capable of judging for himself, and will give merit where merit is due.

I will simply say that there has not been a single instance where I have had my Tuyere put in use but it has given full satisfaction, and is recommended by all who have used them, as being superior to any other ever introduced. I would invite all to give them a trial; and the names of those using them being given, I hope it may induce others to try them; they recommend themselves.

Western Railroad Shop,	Springfield,	Mass.
" "	Pittsfield,	"
Connecticut val. "	Springfield	"
" "	N. Hampton	"
Hartford "	Hartford,	Conn.
New Haven "	New Haven	"
Norwich and Worcester,	Norwich	"
N. York and N. Haven,	New Haven	"
Saratoga and Whitehall,	Saratoga,	N. Y.
Vermont Central,		
Hudson and Berkshire,	Hudson,	
L. Kingsley,	Canton,	Mass.
Hadley Falls Co.	Ireland,	W. Springfield, Mass.
Sidney Patch,		Boston, "
Ames Manuf. Cor.,		Chickopee, "
American Machine w'ks,		Springfield "
Dean, Packard & Mills		" "
G. Frank Bradley,		N. Haven, Conn.
Andrew Baird,		" "
Collis & Lawrence		" "
Slate & Brown,		Windsor Locks,
Gage,		Nashua, N. H.
Machine shop,		Manchester, "
Louis F. Lanney,		Baltimore, Md.
J. H. Baerdid,		179 Chambers st. N. Y.
J. Fanning		Rochester, "
G. W. Hunt		41 Gold st. "
Chamberlain & Waldo,		"
P. S. Burges, carriage maker,		"
Samuel Miller,		"
J. Leggett,		Steverson falls, "
J. E. Harris,		Hillsdale, "
John L. Graham,		Albany, "
David Dalsell,		South Egremont, Mass.
Roys & Wilcock,		Berlin, Conn.

Agents for the sale of Tuyeres:
B. B. Stevens in New York and Connecticut.
W. S. Seymour in Massachusetts and R. Island.
A. J. VanAllen has the Agency for the Western and Southern States, and is now travelling through those States. Any communication addressed to the patentee will receive prompt attention.

E. HARRIS, Patentee,
Springfield, Mass.

November 23, 1849.

CHRONOMETERS.

MERCHANTS, Ship Owners, Captains and others, are invited to examine the advantages offered in the purchase of Chronometers, by HEWITT & SON, Makers, 92 Wall Street, (up stairs,) in their superior quality and great reduction of price.

H. & S. have for many years been engaged in the manufacture of Chronometers, for the first houses in the trad and also, for the Navy of most Nations, and have received numerous rewards for their superior performance. Their Chronometers may be obtained from the Observatory at Liverpool, by order from H. & S., and at City Road, London. They are warranted to give satisfaction; but if not approved of, will be exchanged in New York, London, or Liverpool.

Rating, Cleaning and Repairs, at *low charges*.
The Trade supplyed on the most liberal terms.
November 17, 1849.

F. M. Ray's Patent India-rubber Car Springs.

India-rubber Springs for Railroad Cars were first introduced into use, about two years since, by the inventor. The New England Car Company, now possesses the exclusive right to use, and apply them for this purpose in the United States. It is the only concern that has tested their value by actual experiment, and in all arguments in favor of them, drawn from experience of their use, are in those cases where they have been furnished by this company. It has furnished every spring in use upon the Boston and Worcester road, and, in fact, it has furnished all the springs ever used in this country, with one or two exceptions, where they have been furnished in violation of the rights of this company; and those using them have been legally proceeded against for their use, *as will invariably be done in every case of such violation.*

The Spring formed by alternate layers of India-rubber discs and metal plates, which Mr. Fuller claims to be his invention, was invented by Mr. Ray in 1844.—In proof of which we give the deposition of Osgood Bradley, of the firm of Bradley & Rice, of Worcester, Mass., car manufacturers, and men of the highest respectability. In this deposition, in relation to the right of parties to use these springs, he says:

"I have known Mr. Ray since 1835. In the last of May or the commencement of June, 1844, he was at my establishment, making draft of car trucks. He staid there until about the first of July, and left and went to New York. Was gone some 8 or 10 days, and returned to Worcester. He then on his retnrn said he had a spring that would put iron and steel springs into the shade. Said he would show it to me in a day or two. He showed it to me some two or three days afterwards. It was a block of wood with a hole in it. In the hole he had three pieces of India-rubber, with iron washers between them, such as are used under the nuts of cars. Those were put on to a spindle running through them, which worked in the hole. The model now exhibited is similar to the one shown him by Ray. After the model had been put into a vice, witness said that he might as well make a spring of putty. Ray then said that he meant to use a different kind of rubber, and referred to the use of *Goodyear's Metallic Rubber*, and that a good spring would grow out of it." There are many other depositions to the same effect.

The history of the invention of these springs, together with these depositions, proving the priority of the invention of Mr. Ray, will be furnished to all interested at their office in New York.

This company is not confined to any particular form in the manufacture of their springs. They have applied them in various ways, and they warrant all they sell.

The above cut represents precisely the manner in which the springs were applied to the cars on the Boston and Worcester road, of which Mr. Hale, President of this road speaks, and to which Mr. Knevitt refers in his advertisement. Mr. Hale immediately corrected his mistake in the article quoted by Mr. Knevitt, as will be seen by the following from his paper of June 8, 1848. He says:

INDIA-RUBBER SPRINGS FOR RAILROAD CARS.—"In our paper yesterday, we called attention to what promises to be a very useful invention, consisting of the application of a manufacture of India-rubber to the construction of springs for railroad cars. Our object was to aid in making known to the public, what appeared to us the valuable properties of the invention, as they had been exhibited on trial, on one of the passenger cars of the Boston and Worcester railroad. As to the origin of the invention we had no particular knowledge, but we had been informed that it was the same which had been introduced in England, and which had been subsequently patented in this country; and, we were led to suppose that the manufacturers who have so successfully applied this material, in the case to which we referred had become possessed of the right to use that patent. It will be seen from the following communication, addressed to us by a member of the company, by which the Worcester railroad was supplied with the article upon which our remarks were based, that we were in an error, and that the springs here introduced are an American invention, as well as an American manufacture. How far the English invention may differ from it we have had no opportunity of judging."

AMERICAN RAILROAD JOURNAL.

STEAM NAVIGATION, COMMERCE, MINING, MANUFACTURES.

HENRY V. POOR, Editor.

ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 136 NASSAU ST., NEW YORK, AT FIVE DOLLARS PER ANNUM IN ADVANCE.

SECOND QUARTO SERIES, VOL. VI., No. 15] SATURDAY, APRIL 13, 1850. [WHOLE No. 730, VOL. XXIII.

ASSISTANT EDITORS,

J. T. HODGE, *For Mining and Metallurgy.*

GEN. CHAS. T. JAMES, *For Manufactures and the Mechanic Arts.*

M. BUTT HEWSON, C. E., *For Civil Engineering.*

PRINCIPAL CONTENTS.

Forges and Iron Mines in Northern N. York..225
On the Construction of Roads.....227
Philadelphia Convention.....228
Admission of States.....231
Henry Burden's Patent.....231
Alabama and Tennessee Railroad.....231
Central N. C. Railroad.....231
Railroads in Indiana.....232
Pacific Railroad.....233
Ocean Steam Navigation.....233

American Railroad Journal.

PUBLISHED BY J. H. SCHULTZ & Co., 136 NASSAU ST.

Saturday, April 13, 1850.

Forges and Iron Mines of Northern New York.

In the description of the Iron ores of the Lake Champlain district of New York State, commencing on page 544 of the last volume of the Railroad Journal, an account of the forges and the mines connected with them, of Clinton and Essex counties, was deferred until more data were obtained than those then at hand. Being now provided with enough* at least to give a tolerably complete view of the extent and character of the business in Clinton county and the northern part of Essex, including by far the greater part of the forges of the whole district, I have thought it as well not to defer the publication merely for the sake of including in it the names of the few forges in the southern and central parts of Essex county, with which I am not furnished.

For a long time this region has been celebrated for its great production of bar iron of excellent quality, particularly for the manufacture of nails, and of a variety of articles made from it. Its products have commanded a ready sale in New York and throughout New England, and are still in demand even on the remote shores of the western lakes. The abundant iron mines of the region, and its extensive forest of excellent hard wood, together with the great facilities afforded for the establishment of small forges for the immediate conversion of its ores into malleable iron by the frequent falls of its numerous streams, have, in spite of the sterility of its soil and the severity of its climate, led to its becoming populated with a hardy and industrious people. For an extent of some 70 miles north and south by 35 in width, they are planted along the valleys of the streams in the vicinity of the mines. On the streams stand their forges and near by the prosperous towns, which have grown up from these beginnings. In front this region lies open to the lake on the east; behind it is bounded by the dreary waste of the Adirondac mountains, from the flanks of which its streams descend, and around which the Ausable alone has wound its way.

The general character of the ores and their geological position have already received some attention. They occur in veins,* inexhaustible in their nature, in the granite and gneiss rocks, and most frequently near the line of contact of the great formation of these rocks, which occupies the central mass of northern New York, with the lowest stratified rocks.

The Potsdam sandstone, which is the lowest member of the group of sedimentary rocks of New York, occupies a belt of country between the granite and the lake, the line of contact approaching the lake at Port Kent, and gradually passing from it towards the North. Up the Ausable the granite rocks are met with from six to eight miles from its mouth, and on the Saranac their distance from the lake at Plattsburg is no less than seventeen miles. It is on these streams and the Salmon river and the Little Ausable, all of which flow parallel to each other from the elevated granitic tract down to the lake, that the principal forges are established. The ores are obtained from the hills bordering these streams, and their branches.

The veins tend generally to a north and south direction, and for the most part they are included between the planes of stratification of the gneiss, or what seem to correspond to these in the granite.—The ore is frequently scattered through the rocks in considerable quantity, particularly near the veins; but even at places remote from these it is found sufficient to strongly effect the magnetic needle. Several veins often occur nearly parallel to each other within a width of a few rods. Their dip is steep, but not the same in all the veins.

In following them they are sometimes found to dip in the direction of their course, the upper line of the ore passing beneath a *cap* of the granitic rock. I believe it is generally the case that the body of the vein is thus capped over, rarely appearing at the surface even though the rock which contains the vein beneath the surface is exposed to view. The veins are cut by dykes of greenstone, which cross them obliquely, sometimes heaving them slightly out of place. Few minerals accompany these iron ores. The common gangue is quartz or flint, from which the pure ore is separated by crushing and washing. It is rare to find the ore in the veins so pure as not to need this preparation for the forge. The Port Henry Cheever ore, the New Bed ore of the same vicinity, and the ore from the deep workings of the Arnold mine near Clintonville, are the only exceptions that I am aware of. The little quartz still adhering to the ore after the separating process is of no small service in facilitating as a flux, the reduction. The width of the vein is sometimes very great, even reaching thirty-five feet. These larger deposits are worked along their course open to the day, and the excavations form large chasms, which collect all the water flowing above them. At some of the mines serious difficulties have been met with in draining, as well as heavy losses from falling in of the walls occasioned by the injudicious mode of mining. The ores are combinations in various proportions of the two oxides of iron. The per oxide in some of them prevails to such an extent as to give its characteristic reddish color and powder to the mass, which then has but feeble magnetic action.

The reducing process is wholly conducted in forges similar to the Catalan forge. A particular description and plan of these will be given in the course of this article. It is probable that the small

* For these data I am principally indebted to the politeness of Gen. Skinner, Col. C. D. Barton and Hon. James Rogers.

* See on this subject my remarks on page 527 of the preceding volume of this Journal. The exact nature of these deposits is somewhat obscure. Professor Emmons, in the State Geological Report, p. 291, states decidedly "they are all distinctly veins;" and again on p. 301 of same report—"though I have spoken of this (Palmer mine) and many other instances of the mineral existing as an ordinary vein, yet the word has been adopted partly from convenience; for neither the term *vein* nor *bed* appears to express the true relation to the rock."

SARANAC RIVER. FORGES.	No. fires.	Locality.	Daily capacity of production.	Size of fires. inches.	Remarks.
Hobart & Weston	6	Plattsburg	9,000 lbs.	27 x 30	New stone forge.
Henry K. Averill's	6	near Cadysville, 9 miles from lake	9,000	Ordinary size.	Stone.
" " "Ellis Forge"	2	" 9½ "	3,000	" "	Wood.
Wm. H. Meyers & Co.	3	Elsinore, 10½ miles from lake	6,000	30 x 36	Wood.
M. K. Platt & Co.	4	Saranac Hollow, 18 miles from lake	6,400	28 x 32	New.
George H. Parsons	2	Russia	3,000	Ordinary size.	
Jackson, Morgan & Co	2	"	3,000	" "	These eight fires are in two forges only.
Hull & Co	2	"	3,000	" "	
Spalding & Low	2	"	3,000	" "	
Myers & Cadwell	6		9,000		New.
	4	Garlick Falls	6,000		New.
	6	Union Falls	4,500		Only three fires usually in operation.
State prison	?		?		
SALMON RIVER.					
Horace Boardman	2	Salmon River Village	3,000	Ordinary size.	
John Merchants	2	Schuylers Falls, 11 miles from the lake.	3,000	" "	
Norris Forge	3	Next above	4,500	" "	
Weaver & Davis (two forges)	5	"	7,500	" "	
Putnam Forge	2	"	1,500	" "	Old—only one fire used.
Morrison & Bigelow	2	"	3,000	" "	New.
LITTLE AUSABLE RIVER.					
C. D. Barton	4		6,000	" "	New.
Barker & Barton	2		3,000	" "	
Calvin Cook	2		3,000		New—designed for four fires.
" "	1		1,500		Old.
GREAT AUSABLE RIVER.					
J. & J. H. Peck	4	Birmingham			Not used.
Messrs. Kingsland & Bussing	6	Half a mile below Keesville	9,000	30 x 30	New, of stone.
" " " "	4	Keesville, 4 miles from lake	6,000	30 x 30	In rolling mill.
Peru Iron Co	18	Clintonville, 10 miles from lake	27,000	Common size.	
" "	4	" " "	6,000	" "	In rolling mill.
McLean & Fitz Gerald	2	New Sweden	1,500	" "	
Ellis & White	4	"	3,000	" "	
George M. Burtt	4	Forks Ausable	3,000	" "	New, not in use.
James & John Rogers (2 forges)	12	Black Brook	18,000	" "	
E. A. Hurlbut	2	Outlet of Sampson Pond	3,000	" "	
	130		176,900 lbs.		

amount of capital required to commence this business will account for the preference given to forges over blast furnaces, without having to resort to any imaginary peculiarity in these ores adapting them over other magnetic ores to this particular process. The ores are converted at once into malleable iron in the form of blooms. These are either sold in this state, or are hammered into bars and thus sent to market; or the bars are again made into nails and other finished articles in the factories which are in several instances connected with the forges. The works are supplied with hard wood charcoal, the price of which seldom exceeds seven cents a bushel. Considering the long continued drain these works have been to the neighboring forests, it is rather remarkable that supplies of charcoal have been afforded in sufficient quantity within this rate. And when of late, serious apprehensions were entertained that the accessible woodlands would soon be exhausted, plank roads have been introduced, making available many timbered tracts before out of reach, and moreover greatly adding to the importance of those more remote portions of the iron district, whose ores converted into iron barely paid the expenses of land carriage to the lake.

The transportation out of the country to the markets for its products is limited to the season of navigation of the lake, which is only about half the year. Large tow boats are taken by the steamboats to the head of the lake, and thence they are drawn through the canal to the Hudson river, and then are towed down to New York. The cost per ton to the city is about three dollars.

The expenses of manufacture vary with the locality, the quality of the ores and coal, the character of the machtnery and skill of the workmen.—One item of expense not incident to the blast furnace, is worthy of particular consideration, though it cannot be brought into an estimate of the cost of the iron per ton. Each of the forge fires producing in twenty-four hours fifteen or sixteen hundred pounds of blooms is dependent entirely upon the skill and good will of two experienced workmen. These cannot be easily replaced, particularly where many may be wanted, as in the large establishments, which employ from twelve to twenty-four, or even a greater number of such men. These hands therefore have the same power as puddlers, and often avail themselves of it in combinations and strikes for higher wages. To this evil, involving as it must serious expenses, the forges are particularly liable; but the blast furnace which may be run under the direction of only one man of experience is entirely free from it. Leaving this matter out of the account the direct expenses of the manufacture may be approximated in the following estimate.

Of the separated ore about 2½ tons, representing 6¼ tons of the raw ore, are required to the ton of blooms. The expense of mining this will average about $5; the stamping, washing and transportation from the mine about $4 more. We have then,

2½ tons separated ore	$9
250 bushels charcoal, average $6	15
Labor	8
Interest, repairs and superintendence, say	3
Approximate cost of blooms at the works.	$35

The following table comprises all the forges in Clinton county with those in Essex on the Ausable river. It is complete, I believe, for the four streams, the names of which head its divisions.

The following named forges are among those found farther south and west in Essex county, of which I have not so complete details.

1 Forge of 4 fires belonging to the Ross estate at *Wellsboro Falls*, two miles from the lake, and four and a half from Essex landing. The ores are from the vicinity of Port Henry. They are boated to Essex and then carted back. When the lake is high canal boats go up the Bouquet river within half a mile of the forge.

1 Forge of 2 fires at *Port Kendall* in *Chesterfield*, half a mile from the lake.

1 Forge of 2 fires at Chesterfield, called the *Highland Iron Works*. The ores are principally brought from Port Henry.

1 Forge of 4 fires at *Whallonsburg*, owned by James S. Whallon, Esq., five miles west from the lake.

1 Forge of 4 fires at *Elizabethtown*, owned by Judd & Whallon.

1 Forge of - fires at *Elizabethtown*, owned by Mr. Merriam. There are others also at this place.

1 Forge of 6 fires at *North Hudson*, Schroon river, fourteen miles from the lake, owned by James S. Whallon, Esq. The ores for this are hauled 12 miles.

1 Forge of 2 fires seven miles north of Roots (Schroon River Postoffice) on the State road.

1 Forge of 6 fires at *Crown Point* six miles from the lake, owned by Mr. Penfield. The ore is from

Penfield's mine, a distance of four miles—transportation 87½ cents per ton.

1 Forge of 4 fires four miles farther up Schroon river in *North Hudson*, owned by Taber C. Imus, Esq.

1 Forge of 2 fires at *Schroon River Falls*, two miles above Paradox lake. The ores for this forge are hauled—a part 5 miles, and the rest 8 miles.

In Keene and Jay, back in the interior on the head waters of the Ausable are several other establishments of this kind.

A large number of fires besides those in the table are thus added to that list. We may safely reckon 50 at least, and I think it not at all unlikely if the whole number were known it would be found to exceed 200—capable of making no less than 300,000 lbs. of iron a day or about 45,000 tons per annum. H.

On the Construction of Roads.

Continued from page 212.

GRADING.

The importance of elevating a road bed above the level of the adjoining fields, and digging deep ditches on each side, has been already urged, (pp. 53, 54,) and this is a fundamental requisite in making a good plank road. Employ the earth from the ditches, if good material, rejecting the sods, to raise the road bed. Give the ditches free outlets, cut their bottoms with true slopes, make under drains, of cobble stones and brush, across the road in wet places, and use every precaution to ensure thorough and complete drainage. This will be more difficult in a flat than in a hilly country. If it be effected, however, the plank will last much longer, and the road be always in better condition.*

The "cross-section" of the road bed, or its shape crosswise, between the ditches, must be carefully adjusted so as to freely carry off the rain which may fall on it. First decide on which side of the road the plank track is to be laid. It should generally be on the right hand side coming from the country into a town, so that the farmer's wagons may keep upon it when they bring in their heavy produce, and that the turning out may be done by those which are going back light.† The twelve feet width intended for the earth track should be heavily rolled or beaten, to make it firm and hard. It should slope down from the centre three-quarters of an inch to the foot, (1 in 16,) and the eight feet of plank should fall off three inches, or 1 in 32. From each side of the 20 feet thus graded, the bank should slope down to the bottom of the ditches at the rate of three inches to the foot, or 1 in 4.

The proper shape may be most easily and accurately given by the use of a common masons level, having a tapering piece of wood under it, or having one leg so much longer than the other, as will give the slope required. If the plank be laid on an old road way, no more of it should be broken up than is absolutely necessary for imbedding the sleepers, as it is very desirable to preserve as solid a foundation as possible.

SLEEPERS, SILLS, OR STRINGERS.

Material.—Pine, hemlock, tamarack, oak, and walnut have been used in Canada. Hemlock has been mostly used in New York, from its abundance and cheapness. Pine would be more durable.

Number and size.—At first, five or six, each six inches square, were placed under 16 feet plank.—The Canada board of works' specification, 1845, directs four to be put under a 16-feet road, and 3 under a 10-feet road; the outer ones to be 5 inches square, and the inner ones to be six inches wide, and two inches thick, laid flatwise. On the New York roads of eight feet planks, two sleepers, four inches square, have been generally employed.—They have, however, been found insufficient, and the experienced engineer of the original Syracuse road, strongly recommends sleepers 12 by 3, laid on their flat sides, and for an important road would make them 12 by 4, or even 12 by 6* They should be large and strong enough to hold up the plank road in case of a soft place for a few feet. Others argue, however, that they should be small enough to sink down with the earth as it settles under the planks, so that these may continue to bear upon the ground; as otherwise the planks would be rapidly worn out by the springing thus caused, and would be soon rotted by the confined air under them. They also assert that the only use of the sleepers is to keep the road in shape when first laid down. Indeed, a road three miles long has been laid in Canada, without any sleepers at all under the planks, and it worked quite well. Its advocates say that sleepers form a trench in which water collects, and is by them prevented from running off. It therefore floats the planks, or washes out mud from under them, and thus forms a cavity, which produces the bad effects above mentioned. This consideration would make light sleepers appear to be worse than none. The conclusion seems to be that large sleepers should be used for an important road; and that for a poor one, which expects to receive only light loads, and which runs over a hard bottom, sleepers might perhaps be altogether dispensed with.

Length.—The sleepers used should be as straight and true as possible. On the Syracuse road none less than 13 feet long were admitted. On the Canada roads they are required to be not less than 16 feet, nor more than 20 feet long.

Laying.—Their distance apart, centre to centre, should be such that the wheels of loaded wagons may pass directly over their middle; or somewhat nearer to their outer than their inner sides. This distance will therefore vary in different sections of the country, according to the usual "track" of wagons.† If this principle be varied from, it should be by bringing the sleepers nearer the middle than the ends of the planks, to prevent any depression in the centre. The foot wide sleepers in the figure are drawn three feet apart in the clear, or four feet centre to centre.

They should be well bedded in the earth, in trenches cut to receive them, with their top surface barely in sight. They should bear firmly and evenly throughout their whole length, and the earth between them be well rammed down, and made firm, solid, and even.‡ The sleeper nearer the ditch is to be laid so much lower than the inner one, as to give the proper slope to the road, which is so important for carrying off the rainwater.

Joints.—At the joints, where two sleepers come together, end to end, they are liable to sink under passing loads. To prevent this, various means may be employed. The broad sleepers (12 by 3) may be sawn in two lengthwise, so as to be each 6 by 3, and laid side by side, so as to "break joints; the joints of one set being opposite the middle of the adjoining pieces with which is formed the other set. The sawmills charge no more for the sleepers in two pieces, each 6 by 3, than in one 12 by 3. A second remedy is to lay a short board under the joints of the sleepers, A third is to connect the ends by a mortise and tenon two inches long. A fourth is to unite them by a bevel scarfing, three inches in length, these to be reversed on each half, in which, for distinctness, the two sleepers are represented as separated. In every case the joint on one side of the road ought to be opposite the middle of the sleeper on the other side.

PLANK.

Material.—In Canada, pine, hemlock, tamarack, oak, and Walnut, have been employed. In this state, hemlock alone has been used, being the cheapest material to be obtained. Its defects are its perishable nature, and its numerous knots, which soon make the road rough, when the softer portions of the planks have worn away. Pine, oak, maple, or beach would be preferable. In Wisconsin, &c., white and burr oak are abundant, and would therefore be advantageously used. Oak would make the most permanent road from its superior capabilities of resisting both wear and decay. From its greater weight it would cost a little more for hauling and handling. The slipperiness of hardwood has been made an objection to it, but the sand with which the road should be covered, would obviate this. Whatever sort of timber is employed, it should be sound and free from sap, bad knots, shakes, wanes, or any other imperfections. The plank should be full on the edges, and not less than nine nor more than sixteen inches wide, if of soft wood, or not more than twelve, if of hard wood.

Thickness.—The planks are usually either three or four inches thick; but the builders of the latter roads prefer giving less strength to the plank, and more to the sleepers, which are more durable; and therefore recommend three-inch plank, with sleepers a foot wide. With hemlock plank, any thickness beyond three inches is wasted, for when two inches have been worn down, the projecting knots will make the road too rough to travel on, and it will require renewal. One inch more will be sufficient to hold the knots in, so that we get three inches as the proper thickness. With less knotty timber, thicker plank may be used, *provided* there will be travel enough to wear out the whole thickness from above, before it unprofitably rots out from below. When two tracks are laid, that which would be travelled by the loaded wagons going to market may be laid with four-inch plank, and the other track, for the light wagons, with three-inch plank.

Laying.—The planks should be laid directly *across* the road, at right angles, or "square," to its line, as shown in fig. 115, b, on page 230. The ends of the planks are not laid evenly to a line, but project three or four inches on each side alternately, so as to prevent a rut being formed by the side of the plank track, and to make it easier for loaded wagons to get upon it: as the wheels, instead of scraping along the ends of the planks, when coming towards the track obliquely after turning off, will, on coming square against the edge of one of these projecting planks, rise directly upon it. On the Canada roads, every three planks project three inches on each side of the road alternately, as shown in fig. 115, b.

The planks were laid *lengthwise* of the road, on the first one running from Quebec, it being supposed that they would wear better, and could be more easily taken up and replaced. But it was found that loaded horses slipped upon them, (the longitudinal direction of the grain giving no hold to the feet,) that ruts were soon worn in them, and that they did not keep their places. This arrangement is therefore now abandoned.

The planks have also been laid *obliquely*, diagonally, or 'skewing;' so as to make an angle of 45 degrees with the line of the road, twelve feet plank making an eight feet wide road. This plan is adopted on the Longeuil and Chambly road near Montreal. Its advantages are, that the edges of the plank are not worn down so soon as when the wheels strike them directly, (as shown in reference to pavements, on page 222;) that the zigzag ends of the plank facilitate the getting on the track; and that there is less loss on the rejected, or "cull" planks of 12 feet, than those of 8 feet. But when a wagon wheel comes upon one end of a plank laid thus obliquely, the other end, having no load to keep it down, will spring up, if not fastened to the sleeper; and if it is, the spikes or pins will finally be loosened. Each end of each plank undergoes

* The ditches and side slopes of the road bed, after being ploughed up, may be most rapidly shaped by the use of a scraper of this form, ▶, composed of two planks hinged together in front, and kept apart in the rear by an adjustable cross-piece. The team is attached to the *outer* plank at such a distance from the point as to keep the inner plank in the direction of the road, so that it forms the straight edge of the bank, while the skew of the outer plank throws the earth to one side in the manner of a snow plough. A man with a long lever inserted in the outer side regulates this more exactly.

† But, in ascending a long hill in *either* direction, it should be on the right hand side.

* The *lower* sleeper may be 14 inches wide, and the other 10, as the former acts as a bridge over the channels made under it to let off the water.

† The common track of wagons, measured "from inside to outside," which is the same as from centre to centre, is four feet eight inches in the state of New York. In New Jersey and the Southern States, it is five feet. In Connecticut it varies from three feet eight inches for light wagons, to five feet two inches for heavy ones. In Wisconsin, it is five feet four inches.

‡ A wooden *roller*, weighing two tons, has been very successfully used for settling the sleepers and the earth between them, being drawn over them several times before they are planked.

this action in turn, and thus the road is injured and broken up. The first method of laying the planks —at right angles to the direction of the road—is much to be preferred.

The planks must be laid so as to bear equally on the sleepers, and on the ground between them, depending chiefly on the latter for support. The earth must be well up to and touching the planks at every point, for if any space of confined air be left, dry rot soon follows. If any water be allowed to get under the planks, it forms a soft mud, which is pressed up between them, and deposited on their surface, thus excavating a cavity under them, and rendering them liable to move under passing loads, in a manner which soon wears them out. They must also be laid to close joints.

Fastening.—On the Canada roads the planks have generally been spiked or pinned down to the sleepers. The specification of the board of public works directs them to be spiked "with one spike at each end for planks 12 inches wide or less, and two at each end for planks of a greater width. The spikes are to be of a description called 'pressed' spikes, made of the best English or Canadian iron. They are to be 6½ inches long, 3-8 inch square with chisel-shaped edges, and good broad heads, and are to weigh five to a pound. They are to be driven with the chisel-edge across the fibres of the wood."

On the New York roads this has been considered an unnecessary expense, since the loads come equally upon both ends of the transverse planks, and thus tend to keep them down in their places, their own weight assisting in this. But in wet and badly drained places a new consideration intervenes. If the planks are not fastened down, they will float as soon as an inch of water gets under them. The wheels of a loaded wagon pressing down each plank in turn, drive the water before them, till it finally attains force enough to throw up a plank, and thus break up the road. On the other hand, when the planks are fastened down, the whole road is floated, and the vibrations produced by the passing loads drive the water out on the sides and top of the road, and excavate cavities, which ought to be immediately filled up, an operation which is made difficult by the fastening down of the planks to the sleepers. It is therefore thought better to leave the plank free, and allow them to be thrown out of place, and thus at onee give free passage to the water, and prevent further mischief; a repairer being kept constantly at work upon the road, and required in rainy weather to pass over it once or twice a day. It might be well, as a compromise, to spike down planks at short intervals, say every fifth or tenth plank, the rest being well driven home against these.

Covering.—The planks having been properly laid, as has been directed, should be covered over one inch in thickness, with very fine gravel, or coarse sand, from which all stones or pebbles are to be raked, so as to leave nothing upon the surface of the road, that could be forced into and injure the fibres of the planks. The grit of the sand soon penetrates into the grain of the wood, and combines with the fibres, and the droppings upon the road, to form a hard and tough covering, like felt, which greatly protects the wood from the wheels and horses' shoes. Sawdust and tan bark have also been used.

The road is now ready for use.

To be continued.

New York.

Erie Railroad.—The receipts of the Erie railroad for the month of March, 1850, were:

From passengers and mail.....	$55,349 88
" freight.....	75,218 80
Total.....	$130,578 68
The receipts in March, 1849, were....	50,073 07
Increase [260 per] cent.....	$80,505 61

Northern Railroad.—This work is progressing rapidly toward Ogdensburgh. By the first of May the locomotive will be in operation to the village of Chateugay, 45 miles from Lake Champlain. This will be good news to fishermen, who have been hitherto able to reach the trout streams of those regions, only after excessive fatigue.

Pacific Railroad.

Convention at Philadelphia.

This convention met on the 1st inst., and was finally organized by the choice of William B. Ogden, Esq., of Illinois as president.

VICE PRESIDENTS.

Pennsylvania—Edward C. Hubley.
Delaware—C. J. Dupont, Judge Harrington.
New Jersey—Benjamin W. Cooper.
Virginia—Hall Neilson.
Ohio—J. H. Godman.
Illinois—H. K. Strong.
Iowa—Hon. G. W. Jones.
Missouri—J. Bowlen.
New York—C. Colton.
Michigan—J. Biddle.
Rhode Island—Van Rensselaer Stevens.
Massachusetts—P. P. F. Degrand.
Arkansas—J. H. Storman.
Indiana—Hon. John L. Robinson.
Texas—W. R. Ochiltree.

SECRETARIES.

Pennsylvania—Thomas Birch, Jr.
Missouri—A. B. Chambers.
New Jersey—Philip J. Gray.
Delaware—Dr. J. W. Thomson.

On motion it was resolved, that each state be entitled to the same vote, as her congressional representation.

Mr. A. B. Chamber, of Missouri, as one of the secretaries of the St. Louis convention, laid before the convention a series of resolutions adopted by that body at its last meeting. At his request they were read, and referred to the committee on resolutions. They are as follows:

Resolved, That in the opinion of this convention, it is the duty of the general government to provide, at an early period, for the construction of a central national railroad from the valley of the Misisissippi to the Pacific ocean.

Resolved, That in the opinion of the convention, a grand trunk railroad, with branches to St. Louis, Memphis and Chicago, would be such a central and national one.

Resolved, That a committee be appointed to communicate to a convention to be held in Memphis, the foregoing resolutions, and to request a concurrence of said convention therein.

At another stage of the proceedings, the following resolutions were offered by the Hon. S. Treat, and unanimously adopted.

Resolved, That as an important means, as necessary and preliminary to the construction of such railroad, it is the first duty of the American Congress, immediately on its assembling together, to make provision for the establishment of military posts from the western confines of the Western States to the Pacific ocean; that these posts should be established numerously in all proper places, not far distant from each other, and that civilized and produtive settlements should be encouraged around them by liberal sales or grants of public lands, and by ample protection to the settlers.

Resolved, That the Congress of the United States be memorialized to construct, or authorize the construction of a national line of telegraph along the line which may be determined upon by national authority for the great railway to the Pacific. Said line of telegraph to be constructed in connexion with the military posts named in the preceding resolution, and to be pushed to completion as early as practicable.

The convention was then addressed by Mr. Degrand of Boston, in favor of his plan, with which our readers are familiar.

Mr. Degrand spoke at much length concerning the greatness of the enterprise, and the absorbing influences connected with it. He was listened to with much interest, and concluded by moving that the pamphlet he held in his hand, containing the proceedings of a railroad convention at Boston, should be referred to the committee on resolutions: The motion was passed.

Mr. T. B. Florence then presented and read the following preamble and resolutions, which he moved to refer to the committee on resolutions:

Resolved, That we believe a railroad from the States to the Pacific to be practicable, and ultimately calculated to be of immense benefit to the United States and to its citizens; that with these convictions we recommend an early survey of the entire line by the general government, and that its final construction and control be confided to sworn commissioners selected by the state legislatures, or elected by the people of the various States, whose equitable distribution of the benefits and patronage of the work among the citizens and laborers of the whole country, may prevent it from becoming a political engine or a speculating monster.

Resolved, That we further recommend that the said railroad may commence at some point on the line of the Missouri river, and from thence to run westward to the Pacific, over territories under the jurisdiction of the general government: and that one of the earliest measures in connection with the said work, be to guard the lands of the proposed route from falling into the hands of speculators, to the future exclusion of the superior rights, of the workmen on the road.

Resolved, That the said railroad, when finished, be open to all the world, and that its revenues be kept down at the lowest rates adequate to the current expenses of attendance and repairs. In this connection we heartly recommend the national project, (embracing and enforcing the above views) to the favorable consideration and report of the committees of Congrees, to whose preliminary examination it now stands referred, and subsequently to the favorable action of the two branches of the national legislature, to whom the reports of those committees must be made.

The preamble and resolutions were referred in accordance with the motion.

Mr. Van Rensselaer Stevens, of Rhode Island, presented a paper, which according to his wish was read. It emanated from a railroad convention held in March last at Providence, R. I., and proposed a plan for a railroad to the Pacific, different from others.

On motion of Mr. Stevens, the paper was referred to the committee on resolutions.

The Chair announced the committee on resolutions to be composed of the following gentlemen:

Samuel R. Curtis, of Iowa; Hon. J. B. Bowlin, Miss.; H. K. Strong, Jr., Ill.; John Biddle, Mich.; David C. Wilson, Del.; Jas. H. Godman, O.; J. F. Johnson, Va.; Josh. Buffum, R. I.; Alfred Wallace, Ark.; John A. Roebling, N. J.; Asa Whitney, N. Y.; C. T. Laport, Mass.; W. B. Ochiltree, Texas; Thomas M. Pettit, Pa.

After some other unimportant proceedings Mr. Curtis, of Ohio, as chairman of the committee on resolutions, reported a series of resolutions, which had been agreed upon. The committee had not adopted any of the plans submitted to them, and, indeed, had not had time to properly consider them. They had, therefore, adopted general resolutions, which he read, as follows:

Resolved, That in the opinion of this convention, a railroad communication connecting the navigable waters of the Mississippi with the navigable waters of the Pacific Ocean, is practicable, and its construction is desired immediately. It is, therefore, the duty of Congress in some way to apply the energies of our country, so as to secure the earliest possible completion of such a work.

Resolved, That the work is national in its character, and should, therefore, be constructed by national means; but to avoid state and local prejudices, the government should confine its operations to the country beyond the limits of the organized States, leaving the various branches within the States to be constructed by such means and on such routes as the States may prefer.

Resolved, That to aid the States in carrying forward their lines to the main trunk, liberal appropriations should be made of the public lands adjacent, to be applied as the States may consider expedient.

Resolved, That Congress be memorialized to take such steps, as in its wisdom may be deemed expedient to accomplish the great object contemplated in the foregoing resolutions—commencing with a thorough survey, by competent engineers, of all the routes that may be considered practicable.

S. V. Merrick. Esq., moved that they be adopted.—This elicited a discussion in which a number of genltemen participated. Mr. C. T. Laporte, of Massachusetts spoke in opposition to them, and advocated the plan of Mr. Degrand. Mr. Carter, of Ohio, spoke in opposition to Mr. Degrand's plan, and also in opposition to that of Mr. Whitney. The first made the government pay an enormous disproportion of the cost, and the latter was simply impossible. Mr. Whitney could not, by any means obtain the strip of land which is essential to his plan. He wished the concentrated action of Congress to be brought upon the subject. He was desirous to avoid all sectional jealousies.

Mr. V. R. Stevens, of Rhode Island addressed the convention in favor of the "Rhode Island" plan, which has been published in the columns of our paper. He claimed in favor of his plan that it gives a national location, and gives the stamp of nationality as fully to the whole work as does Mr. Benton's.

It presents a compromise between Mr. Benton's and Mr. Degrand's, and combines the best features of both.

It shuns the great objection of indefinitely extending political patronage.

It reduces nearly half of the government expenditures, and combines both the power of the government and that of an efficient, powerful company.

It insures the continued exertion and early completion of the work; for government cannot stop the work without great damage to the company—nor can the company stop without a corresponding damage to the government.

It holds on to the public lands until, by the progressive advancement of the road, they can be sold at their advanced value.

It invites foreign capital to this country by presenting a prominent and profitable place for investment.

It provides for a transfer of the government part of the road without the expenditure of money by the company—only the perpetual performance of service as government carriers; the enhanced value of the lands being the profit to the government.

Government can afford to build a southern and northern route.

This plan divides the project where a real separation is found growing out of the character of the work and the men who do it.

As regards expenses and location.: —

Whatever is plausible in Mr. Benton's plan(and there is much)is embraced in this.

This plan embraces every good feature of Mr. Degrand's—but avoids the objectionable features.

The plan is offered as a compromise—as uniting the two in one, and is commended to the good sense of every statesman.

Some of the objections to Mr. Benton's plan may be thus stated:

It involves immense extended political patronage—we are sure that Mr. Benton does not mean this, for it can never chime with his democratic principles.

It throws the whole burden upon the government.

It does not place the immediate construction of the work beyond a doubt, because his expenditures depend upon moneys from the sale of lands—so that should a law be made giving lands to actual settlers, beside the Mexican appropriation, his means would be cut off.

These objections tell with great force against Mr. Whitney's.

Government is not, nor cannot be in a position to build the substructure, and run the road as economically as a company. It may expend its whole energies and credit on the first grand division.

As regards Mr. Degrand's plan, the following objections were urged.

It does not insure a government location; neither does Mr. Whitney's.

It establishes a dangerous precdcent, by making the government creditor to a corporation.

It involves the company in a huge debt, to meet the interest of which only, apart from the principal, a high rate of toll must be charged. He proved this by a variety of demonstrative calculations.

The Rhode Island plan asks that government shall make surveys, grade the road, complete the bridging, etc. That done, a powerful company to be organized to complete the substructure, and bring the work into operation.

Mr. Joel B. Sutherland was of the opinion that government only ought to be the means by which the road should be constructed. He was utterly opposed to all private schemes. It was a government matter solely. California is a country which we cannot keep except by a road to the Pacific.

He glanced rapidly at the circumstances under which she applies for admission into the Union, and of the prospects which open before her; and we regret that we cannot sketch his remarks. He concluded by an earnest appeal in favor of the passage of the resolutions of the committee.

Mr. Solomon W. Roberts opposed the resolutions of the committee, but wished the debate postponed in order to receive a letter from Col. Fremont relative to California, which was expected next day.

He also wished to have an opportunity to make a motion inviting Mr. Whitney, who is not a delegate, to address the convention.

After some other unimportant business the convention adjourned till the next morning, when the following letter was read:

COL. FREMONT'S LETTER.

To Messrs. B. Gerhard and others, Committee, &c.

Gentlemen—It would have given me great pleasure to have been able to accept your kind invitation, and to have met the Mississippi and Pacific railroad convention, on Monday, but the remains of a Chagres fever confine me to my room, and leave me no other mode of showing my sense of your attention, and manifesting the interest I take in the great object which assembles this convention, than to contribute, so far as I can, to the mass of the information which will be laid before it. In doing this, I regret that the state of my health does not permit even the labor necessary to give the distances and barometrical elevations along the route which I shall offer for your consideration, but I have caused a skeleton map rudely sketched, to be prepared to accompany this communication, and which in exhibiting the prominent features of the country and general direction of the line, will be found sufficiently full and accurate to illustrate what I have to say.

Many lines of exploration through the wilderness country from our inhabited frontier to the Pacific ocean, have conclusively satisfied me that the region or belt of country, lying between the 38th and 39th parallels of latitude offer singular facilities and extraordinary comparative advantages for the continuation of the proposed road.

I propose, therefore, to occupy your attention solely with this line for the clearer understanding of which, it will aid to keep under the eye the accompanying map, upon which the unbroken red lines are intended to show that the regions which they traverse have been already explored, while the broken red lines indicate what is known only from reliable information.

The country to be traversed by the proposed road exhibits but two great features—the prairies. reaching to about the 105th degree of longitude; and the mountains with which it is bristling from that point to the shores of the Pacific ocean. Some years of travel among these mountains, during which I was occupied principally in searching for convenient passes and good lines of communication, gradually led me to comprehend their structure and to understand that among this extended mass of mountains there is nowhere to be found a great continuous range having an unbroken crest, where passes are only to be found in the comparatively small depressions of the summit line.

Throughout this great extent of country—stretching in each way about 17 degrees—all these apparently continuous ranges are composed of lengthened blocks of mountains, separate and detached—of greater or less length according to the magnitude of the chain which they compose—each one possessing its separate, noted and prominent peaks, and lying parallel to each other, but not usually so to the general direction of the range, but in many cases lying diagonally across it, springing suddenly up from the general level of the country; sometimes rising into bare and rocky summits of great height, they leave openings through the range but little above this general level, and by which they can be passed without climbing a mountain. Generally these openings are wooded vallies, where the mountain springs from either side collect together, forming often the main branches of some mighty stream. Aggregated together in this way, they go on to form the great chains of the Rocky Mountains and Sierra Nevada, as well as the smaller and secondary ranges which occupy the intervening space. With the gradual discovery of this system, I became satisfied, not only of the entire practicability, but of the easy construction of a railroad across this rugged region. As this peculiarity in the country forms the basis of my information, I desire to state it clearly at the outset, in order that I might be more readily understood in proceeding to show that this continent can be crossed, from the Mississippi to the Pacific, without climbing a mountain, and on the very line which every national consideration would require to connect the great valley of the west with the Pacific ocean.

In describing the belt of country through which the road should pass, it will be found convenient to divide the entire line into three parts—the eastern reaching from the mouth of the Kansas to the head of the Del Norte; the middle from the head of the Del Norte to the rim of the Great Basin; and the western from the rim of the Great Basin to the ocean. Beginning near the 39th parallel of latitude, at the mouth of the Kansas, the road would extend along the valley of that river some three or four hundred miles, traversing a beautiful and wooded country of great fertility of soil, well adapted to settlement and cultivation. From the upper waters of the Kansas, falling easily over into the valley of the Arkansas, the road strikes that river about a hundred miles below the foot of the mountains, continuing it only to the mouth of the Huerfano river. From this point the prairie plains sweep directly up to the mountains, which dominate them as highlands to the ocean. The Huerfano is one of the upper branches of the Arkansas, and following the line of this stream the road would here enter a country magnificently beautiful—timbered, having many bays or vallies of great fertility;—having a mild and beautiful climate; having throughout the valley country short winters, which spend their force in the elevated regions of the mountains. The range of mountains in which this stream finds its head springs is distinguished by having its summits almost constantly enveloped in clouds of rain or snow, from which it obtains its name of Sierra Mojada, or Wet Mountain. This chain is remarkable among the Rocky Mountain ranges for the singular grandeur of its winter scenery, which has been characterised by travellers who have seen both, as unsurpassed either in the Alps or the Himalayas. Their naked rocky summits are grouped into numerous peaks,

which rise from the midst of black piney forests, whence issue many small streams to the valley below. Following by an open wagon way the valley of the Huerfano, the road reaches the immediate foot of the mountain at the entrance of a remarkable pass, almost every where surrounded by bold, rocky mountain masses. From one foot of the mountains to the other, the pass is about five miles long; a level valley from two to four hundred yards wide, the mountain rising abruptly on either side. With scarcely a distinguishable rise from the river plains, the road here passes directly through or between the mountains, emerging in the open valley of the Del Norte, here some forty or fifty miles broad, or more properly a continuation northward of the valley in which the Del Norte runs. Crossing this flat country, or opening between the mountains, and encountering no water course in its way the road would reach the entrance of a pass in the Colorado mountains, familiarly known to the New Mexicans and Indian traders who are accustomed to traverse it at all seasons of the year, and who represent it as conducting to the waters of the Colorado river though a handsome rolling grass-covered country, and affording practicable wagon routes.

This section of the route, so far as the entrance to this pass, covering twelve degrees of longitude, I am able to speak of from actual exploration, and to say that the line described is not only practicable, but affords many and singular facilities for the construction of a railway, and offers many advantages in the fertile and wooded country through which it lies in the greater part of its course.

In the whole distance there is not an elevation, worthy of the name, to be surmounted; and a level, of about 8000 feet, is gained almost without perceptible ascent. Up the Kansas and Huerfano river valleys, it is wooded and watered; the valley of the Del Norte is open, but wood is abundant in the neighboring mountains, and land fit for cultivation is found almost continuously along the water courses, from the mouth of Kansas to the head of the valley of the Del Norte.

A journey, undertaken in the winter of 1848-49, (and interrupted here by entering more to the southward, the rugged mountain of St. John's, one of the most impracticable on the continent,) was intended to make a correct examination of this pass and the country beyond to the rim of the Great Basin. The failure of this expedition, leaves only for this middle portion of our line such knowledge as we have been able to obtain from trappers and Indian traders. The information thus obtained had led me to attempt its exploration, as all accounts concurred in representing it practicable for a road;—and the information thus obtained was considered to be sufficiently reliable.

According to this information, the same structure of the country to which I have called your attention above, as forming a system among the mountains, holds good; and I accordingly found no difficulty in believing that the road would readily avoid any obstacles which might be presented in the shape of mountain ranges, and easily reach the Basin.

In pronouncing upon the practicability of a road through this section, I proceed upon my general knowledge of the face of the country, upon information received from hunters and residents in New Mexico, and upon the established fact, that it has not only been travelled, but at all seasons of the year, and is one of the travelling routes from New Mexico to California.

The third section of the map is from the Wahsatch Mountain to the Sierra Nevada, and thence to the Bay of San Francisco. This route traverses the Great Basin, presenting three different lines, which you will find indicated on the map. Repeated journeys have given me more or less knowledge of the country along these lines, and I consider all of them practicable, although the question of preference remains to be settled. The northern line is that of the Humboldt river, which, although deflecting from the direct course of the bay, commands in its approach to the mountains several practicable passes, the lowest of which is only 4500 feet above the sea.

The southern line, which in crossing the Basin, has not the same freedom from obstruction enjoyed by the open river line of the north, is still entirely practicable, and possesses the advantage of crossing the Sierra Nevada at a remarkably low depression, called Walker's Pass, more commonly known as the *Point of the Mountains*, and being in fact a termination of one of the mountains which go from that chain.

This pass is near the 85th degree of latitude and near the head of the beautiful and fertile valley of the San Joaquin, which the road thence would follow down to its junction with the Sacramento or to some point on the bay. This route deflects to the south about as much as the other does to the north, but secures a good way, and finds no obstacle from the Sierra, turning that mountain where it has sunk down nearly to the level of the country. Among the recent proceedings of the California Legislature, resolutions were introduced in favor of bringing in the railway at this pass.

The third line, which is the middle and direct line, and that to which I gave a decided preference, is less known to me than either of the others, but I believe fully in its practicability, and only see, as the principal obstacle to be overcome, the Great Sierra itself, which it would strike near its centre. That obstacle is not considered insurmountable, nor, in the present state of railway science, sufficient to turn us from the direct route. A pass is known as indicated by the line upon the map, which labor would render practicable. Other passes are also known, to the north and south; and if tunnelling become necessary, the structure of the mountains is such as allow tunnels to be used with the greatest advantage. Narrow places are presented where opposite gorges approach each other, and a wall of some two or three thousand feet often separates points which may not be more than a quarter or half a mile apart at its base. It will also be remembered that the Great Basin, east of the Sierra Nevada, has a general elevation of over four thousand feet, so that the mountain would be approached on the east at that elevation, and on the west the slope is wide, though descending to near the level of tide water.

The foregoing remarks embody all the general information I am now able to give upon this line. The first section of it, from the Missouri frontier to the head of the Del Norte, is explored, and needs no further reconnoisance. It is ready for the location of the road by a practical engineer. The second and third sections require further explorations, to determine not upon practicability, but upon the preference due to one over the others.

A party of 300 men, skilfully directed, with the assistance of three or four practical road engineers, would be sufficient to lay out the whole routes, and clear and open a common road in the course of the next spring and summer, so as to be passable for wagons and carriages, and as rapidly traversed as any of the common roads in the U. States.

The obstacles which I have not mentioned are, the winter impediment of snows, and the temporary one from the hostility of Indians. The latter can be surmounted by military stations, sending out military patrols to clear and scour the line.—The snows are less formidable than would be supposed from the great elevation of the central part of the route.

They are dry and therefere more readily passed through, are thin in the valleys, and remain on them only during a very brief winter. The winter of my last expedition was one of unprecedentedly deep and early snows, yet in the valley of the Kansas and Arkansas, it was thin; in the valley of Huerfano, none; and in the valley of the Del Norte at the end of November, but a few inches deep.—Even in this severe winter, on the 5th of December, at the greatest elevation crossed by the eastern section of the line—being in the narrow pass between the Arkansas and Del Norte, the snow was only three feet deep; the thermometer at Zero near midday. The weather in these high mountains and deep valleys is of a character adapted to such localities—extremely cold on the mountains, while temperate in the valleys. I have seen it storming for days together on the mountains in a way to be destructive to all animal life exposed to it, while in the valley there would be pleasant sunshine, and the animals feeding on nutritious grass. Beyond the Rocky Mountains, the cold is less, and the snows become a less and more transient obstacle.

These are my views of a route for the road or roads, (a common one is first wanted,) from the Mississippi to the Pacific. It fulfils, in my opinion, all the conditions of a route for a national thoroughfare.

1st. It is direct. The course is almost a straight line, from end to end. St. Louis is between 38-39; San Francisco is about the same; and the route is between these parallels, or nearly between them the whole way.

2d. It is central to territory. It is through the territorial centre west of the Mississippi, and its prolongation to the Atlantic ocean, would be central to the states east of that river. It is also central to business and population, and unites the greatest commercial point in the valley of the Mississippi, with the greatest commercial point on the coast of the Pacific.

3d. It combines the advantages for making and preserving the road. wood, water and soil, for inhabitation and cultivation.

4th. It is a healthy route. No diseases of any kind upon it; and the valetudinarian might travel it in his own vehicle, on horse, or even on foot, for the mere restoration of health and recovery of spirits.

It not only fulfils all the conditions of a national route, but is preferable to any other. It is preferable to the South Pass from being near four degrees further south, more free from open plains, and free from the rising of great rivers. Its course is parallel with the rivers, there being but one (the upper Colorado) directly crossing its line. There are passes at the head of Arkansas, in the Three Parks and north of them, but none equal to this by the Rio del Norte. There is no route north of it that is comparable to it; I believe there is no practicable route south of it within the United States. The disaster which turned me south from the head of the Del Norte and sent me down the valley of that river, and to the mountains around the Upper Gila, enabled me to satisfy myself on that point. I went a middle route—a new way—between the Gila river and the wagon road through the Mexican province of Senora, and am satisfied that no route for a road can be had on that line, except going thro' Mexico, then crossing the great Colorado of the west, near its mouth, to cross the desert to arrive at San Diego, where there is no business, and still be six hundred miles by land, and three or four hundred by water, from the bay of San Francisco, which now is, and forever must be, the great centre of commerce, wealth and power on the American coast of the Pacific ocean.

In conclusion, I have to say, that I believe in the practicability of this work, and that every national consideration requires it to be done, and to be done at once, and as a national work, by the United States.

Your obliged fellow citizen,
J. C. Fremont.

After the letter of Mr. Fremont's was read, Mr. Whitney was invited to address the convention.—Mr. Whitney declined the invitation on the ground that his project was not before it. The discussion then turned upon the resolutions of the committee, in which Messrs. Robinson of Indiana, Sutherland Morison of Pennsylvania, Biddle of Michigan, and and Curtis of Iowa, took part, and they were almost unanimously passed.

A resolution was introduced by S. W. Roberts, Esq., and unanimously passed:

That it be recommended to the American people in all parts of our common country to urge upon Congress by numerous petitions to make an early and ample appropriation for surveys of the most feasible routes for the construction of a direct railroad to California and Oregon, from the valley of the Mississippi.

Mr. Roberts advocated his resolution by a speech of some length. In the course of his remarks he said:—

Some persons may say that this convention is a failure, because it does not recommend a plan. In my opinion, it would deserve to be considered a failure if it recommended any plan. The time for that has not yet come. Let us recommend in the strongest terms an immediate survey, and let us

urge upon the people throughout the country to petition Congress to make an appropriation for the purpose. If the people of the north and the south, the east and the west, will pour in upon Congress a flood of petitions urging this object, then it will be attained. If every town and every county, of the broad west alone, would petition for a survey, it would be sure to be granted. In this way a great and tangible good would be sure to be accomplished; the first step would be taken, and it would be a step in the right direction.

This great national railroad from the Mississippi valley to the Pacific ocean, is no chimera. It is an idea that has taken fast hold of the minds of the American people. They will never cease to think of it, to talk of it and to urge it, until it is done.—The ball has been started and no man can stop it. The power of attraction between our country on the Atlantic and our country on the Pacific, is stronger than that of the needle to the pole. It is strong enough to unite them, and it will unite them, with bands of iron, which will never be broken; and by means of which the people will be able to pass across the continent, from ocean to ocean, with a speed like that of the American eagle. Steam upon the land will beat steam upon the sea, as the wind flies faster than the wave.

Our four great eastern cities have no occasion to be jealous of each other in this matter. New York is but a degree and a half north of Baltimore, and Boston is not far north of New York. The four great railroads which they are pushing westward, all come together in the state of Ohio; and the grand trunk line which Philadelphia and Pittsburg are now constructing, for a distance of five hundred and thirty-five miles, is as much a trunk line to St. Louis as it is to Chicago, and as much a trunk line to Chicago as it is to St. Louis. Let the national Pacific railroad strike the navigable waters of the Mississippi valley where it may, it will be sure to connect with the whole net work of railroads throughout the present states, and add greatly to their value.

From Portland, in Maine, to Independence, Missouri, will be seventeen hundred and fifty miles, by the railroads already constructed or undertaken by incorporated companies. From that point to the Pacific ocean, will be about two thousand miles, so that we may say, that on that route, nearly one-half of the whole line is already begun.

Mr. Godman, of Ohio, moved the following:

Resolved, That a committee of five be appointed by the President, to draft the memorial provided for by the last resolution reported by the committee on resolutions, and that they cause the same, together with the proceedings of this convention, to be presented to the Congress of the United States, thro' such members of that body as they may deem advisable.

The chair appointed the following gentlemen as a committee for preparing a memorial:

John Biddle, of Michigan.
S. R. Curtis, of Iowa.
Samuel V. Merrick, of Pennsylvania.
J. A. Roelbing, of New Jersey.
Joel B. Sutherland, of Pennsylvania.

Some other unimportant motions were disposed of, and the convention after listening to a very eloquent address from its President, which we hope soon to be able to publish in full, adjourned *sine die.*

Worcester Railroad Meeting.

An adjourned meeting of the stockholders of the Worcester railroad was held on Wednesday, to hear the report of the committee on the subject of free passes; and at the same time a new meeting was called, to consider the expediency of accepting the late act of the Legislature, increasing the capital stock of the corporation.

On motion of Mr. Sturgis, the act was unanimously adopted, and the Directors were authorised to issue 5000 additional shares of capital stock, made payable on the conditions specified in the act, and at such times as they shall think proper.

Peter T. Homer, Esq., from the committee on the subject of free passes, reported the following resolutions.

Resolved, That hereafter no persons shall be permitted to pass over the road without fare, excepting its President, Superintendent and Directors, with those of their immediate household, who would otherwise travel at the expense of said President, Superintendent and Directors; employees on the business of the road; Directors of railroads in immediate connection with the Boston and Worcester railroad; also President and Superintendent of each railroad terminating in Boston.

Resolved, That the President and superintendent of the Boston and Worcester railroad, have authority to grant free passes, by having the names of each person using such pass recorded in a book, with the number of times used. Such book shall always be accessible to the stockholders, also to authorise, under their supervision, the station agent at Worcester, to grant free passes, also to be entered in a book as before stated.

After some discussson the resolutions were adopted:—

On motion of Peter T. Homer, Esq.—

Resolved, That the directors, in their annual report, be requested to give the details of the expenditures for construction account since 1844.

On motion of Frederic Emerson, Esq.—

Resolved, That the directors be authorised to delay the construction of the Framingham Branch, at their discretion.

The following is the order of time in which the several States were admitted into the Union.

1. Delaware	7	Dec.,	1787
2. Pennsylvania	12	"	"
3. New Jersey	18	"	"
4. Georgia	2	Jan.,	1788
5. Connecticut	9	"	"
6. Massachusetts	6	Feb.,	"
7. Maryland	28	April	"
8. South Carolina	23	May,	"
9. New Hampshire	21	June,	"
10. Virginia	26	"	"
11. New York	26	July,	"
12. North Carolina	20	Nov.,	1789
13. Rhode Island	29	May,	1790
14. Vermont	4	March,	1791
15. Kentucky	1	June,	1792
16. Tennessee	1	"	1796
17. Ohio	29	Nov.,	1802
18. Louisiana	8	April,	1812
19. Indiana	11	Dec.	1816
20. Mississippi	10	"	1817
21. Illinois	3	"	1818
22. Alabama	4	"	1819
23. Maine	15	March,	1820
24. Missouri	10	Aug.,	1821
25. Arkansas	15	June,	1836
26. Michigan	20	"	1837
27. Florida	7	March,	1844
28. Texas	20	Dec.,	1845
29. Wisconsin	29	"	1848
30. Iowa	—	—	1849

Henry Burden's Patent.

From the Troy Bndget.

From the article published in our paper some time since, giving the result of a trial between the Troy and Iron and Nail Factory against Erastus Corning, John F. Winslow and others, before the U.S. District Court of the Northern District, Judge Nelson presiding, we see by our exchanges, it has been understood that that decision overruled Mr. Burden's claim as the first and original inventor of *hook headed spikes.* The article in question was handed us by a correspondent, and we neither examined nor understood anything of the subject matter of that suit.

Being satisfied since our attention has been called to it, that our exchanges are laboring under an error as to that decision, and have cited us as the authority to that error, it is due to Mr. Burden that we should correct it. The decision of Judge Nelson in that case, so far from overruling Mr. Burden's claim to that patent, fully sustains it, and vindicates his claim to it as the original inventor.

Alabama.

Alabama and Tennessee Railroad.

The subscriptions to the stock of this company now amounts to about $1,000,000, sufficient to warrant the immediate commencement and speedy prosecution of the work. This road is to connect Selma, on the Alabama river, and Gunter's Landing, on the Tennessee, by a line about 185 miles long. It is a very important work in every point of view. It will open a direct communication between the Gulf of Mexico and the great lines of Southern railroad, and consequently with all the railroads of the country. Its direction coincides with the course of trade. It practically unites the Tennessee river with the Gulf, and penetrates the great coal and iron fields of Alabama, and a region unsurpassed in the Union for its fertility. It will be the great road of Alabama, and exert a marked influence upon the progress of that State; and we are exceedingly gratified to find its early completion a matter past doubt.

North Carolina.

The Central Railroad.—This road is not yet quite out of the woods. After the whole amuont ($1,000,000) of individual subscription was supposed to be secured, it turned out that the subscription of $40,000 by the Petersburg railroad could not legally be made. Upon $47,000 also, of individual subscription, the cash payment of five per cent. was not made as is required, and of course this sum could not be counted as available. These failures leave $76,000 yet to be raised, which will be done we have no doubt, with but little delay.

This whole movement in North Carolina has been in a few hands, and what has been accomplished has been the work of a few leading men in that State. Their efforts, we regret to say, have met with but a cold response from the great mass of the people. These men, embracing, among others, Messrs. Morehead, Graham, Saunders, Graves, Carter and Lord, fully appreciated the necessity of the proposed work, to enable North Carolina to maintain a respectful relative position in the great family of the States. Nature has favored her with a fine soil, without giving her those natural advantages in navigable rivers, for the transportation of her products, which most of the States possess. Having but limited means of forwarding her products to a market, she has but little commerce, and consequently possesses no commercial centre, where, as in other States, is collected a large amount of wealth to be returned to the country, to be expended in the further development of its resources. Her leading men saw that unless she availed herself of those agents which modern science has provided, and which are so potent in the production of wealth, and which other States are eagerly subjecting to their use, she must apparently retrograde, and present a most striking and humiliating contrast to the rapid progress of her neighbors. The few who saw and felt this, have found it almost impossible to infuse the great mass with any of the spirit and conviction which they felt.—The consequence has been that with the most energetic and persevering efforts of the first men of the State, and with a greater part of it as a field for their exertions, $1,000,000 has not yet been raised. There is not a town in New England, of 15,000 inhabitants, but would, under similar inducements, have raised an equal sum in one week. This sum however will soon be forthcoming, and when it is

obtained, North Carolina will owe a debt of gratitude to those who have been instrumental in procuring it which she can but indifferently appreciate, and which she will never repay. If these men had known the task that was before them, we will be bound to say that they never would have undertaken it, and that they will never undertake a similar job.

AMERICAN RAILROAD JOURNAL.

Saturday, April 13, 1850.

Indiana.

We have been favored, by the politeness of John Brough, Esq., President of the Madison and Indianapolis railroad, with a map of that State, on which are laid down the various railroads now in process of construction, and which are to connect with the Madison and Indianapolis either at its northern terminus, Indianapolis, or at some point along its line. This map is accompanied with a brief description of the Madison and Indianapolis railroad, and also of the roads in which this road is o be connected, the following abstract of which we give to our readers:

1. *Madison and Indianapolis Railroad.*—This road is 86 miles long, and was completed in 1847; 26 miles being laid with a light T bar, and 60 miles with a flat rail. During the past two years, 30 miles of the plate rail reaching to Edinburgh have been replaced by a T rail of 60 lbs. to the yard.—The heavy rail is also provided for the remainder of the track, and is to be laid as soon as the present track begins to decay. This road under the able management of its President is doing a very large business, and pays a large dividend upon its stock. It is the pioneer railway in Indiana, and is doing essential service to the other roads now building, in giving them an example of good management, and in extending to them important pecuniary aid, which its present flourishing condition and high credit in the money market, enables it to render. It is peculiarly fortunate for a State embarking as largely in railway construction as is Indiana, that her first and leading railroad is under the direction of a person who is so fully capable of giving to those engaged in these works advice and instruction, and who possesses both the means and disposition to give to others the benefit of his own experience.

2. *Shelbyville Lateral Branch Railroad.*—This road branches from the above road at Edinburgh, 56 miles from Madison. It is laid with a plate rail, and was put into operation July 1, 1849. It is 16 miles long.

3. *Rushville Lateral Branch Railroad*—Extends from Shelbyville in an Easterly direction to Rushville, a distance of 20 miles. It has a plate rail.—This road will be completed for the cars by the 1st of August next.

4. *Knightstown and Shelbyville Railroad*—Extends from Shelbyville to Knightstown, a distance of 27 miles. It has the plate rail, and is to be completed by the first of August or September.

5. *Columbus, Nashville and Bloomington Railroad.*—This road forms a junction with the Madison and Indianapolis at Columbus, 45 miles north of Madison, and extends from thence in a westerly direction through Nashville to Bloomington, in Monroe county, a distance of 40 miles. This company was re-organised in January last, and about $160,000 have been subscribed to its stock, and the company has an assurance that the iron for the road can be obtained, if the road can be fitted to receive it without incurring any debt. This road will penetrate the coal and iron region of the State. A corps of engineers are now engaged in completing a survey of the route.

6. *Martinsville Railroad*—Connects with the Madison road three miles north of Edinburgh, and extends in a northwesterly direction to Martinsville, a distance of 29 miles. Sufficient stock has been subscribed to fit this road for the iron. It is intended to complete this road by July 1, 1851.

7. *Indianapolis and Bellefontaine Railroad.*—This road extends from Indianapolis to the Ohio State Line, a distance of 83½ miles, where it connects with the Bellefontaine and Indiana railroad, and forms one of the links in the great line of railroad now in process of construction from Philadelphia to Terre Haute, and ultimately to St. Louis. Forty-three miles of this road is now ready for the iron, which we learn has been recently purchased for that extent. The amount now subscribed to the stock of this road has reached the sum of $400,000. The portion of the line for which the iron has been purchased is to be completed for the fall business.

8. *Indianapolis and Peru Railroad*—Connects the former place with Peru on the Erie and Wabash Canal, by a line 76 miles long. From Indianapolis to Noblesville, the road is prepared for the iron, which has been purchased for this extent. It is to have a plate rail 2½ by 7-8 inches, and the 20 miles is to be completed for the fall trade. The Madison company is to run both of the last named roads for the present.

9. *Indianapolis and Lafayette Railroad*—connects Indianapolis and Lafayette on the Erie canal and Wabash river by a line 69 miles long. Thirty miles commencing at Lafayette are nearly prepared for the iron. The balance of the line is to be laid the present spring. This company has a sufficient home subscription to prepare the road for the iron which it proposes to purchase with its bonds.

10. *Lafayette and Crawfordville Railroad*—Connects the above towns by a line 28 miles long.—The grading and bridging of this road is under contract to be completed the present season.

11. *Terre Haute and Indianapolis Railroad*—Connects these two places by a line of 72 miles. The whole line with the exception of 16 miles is now under contract, and will probably be ready for the iron in the spring of 1851. This company has sufficient subscription to prepare the road for the rails.

12. *New Albany and Salem Railroad*—Commences at New Albany at the foot of the falls of the Ohio, and runs thence northward to Salem, thirty-five miles. This company is now authorised to extend its road through Bedford, Bloomington and Gosport, a distance of 120 miles to Crawfordville, to meet the road from Lafayette to that place. This road is now ready for the iron to Salem, and has a sufficient quantity prepared for 18 miles. The grading is also under contract to Bedford, 65 miles from New Albany.

13. *Jeffersonville and Columbus Railroad*—Extends from Jeffersonville, opposite Louisville, to Columbus, on the Madison railroad, a distance of 65 miles. The grading of about half of the road is nearly completed, and iron for about 20 miles has been provided, and will be laid the present season.

14. *Lawrenceburgh and Greensburgh Railroad*—Extending from Lawrenceburgh, on the Ohio river, twenty-four miles below Cincinnati, northwest, a distance of forty-two miles to Greensburgh. This road is intended to be continued about twenty-four miles, to a juncton with the Madison road at Edinburgh.

15. *Cincinnati, Hamilton and Dayton Railroad.*—This road lies entirely within the State of Ohio, and is in rapid process of completion. The first section of this road, from Cincinnati to Hamilton, is intended to form a link in the road projected from the former city to Indianapolis. The contemplated line runs from Hamilton to Oxford, in Ohio—which is designated on the map; thence to Connersville, Indiana; thence to Rushville; thence adopting the Rushville road to Shelbyville, and thence direct to Indianapolis.

The above list contains only those roads which connect, or propose to connect, with the Madison and Indianapolis. They make an aggregate length of line of over 800 miles. All are in rapid process of construction, and will be rapidly pushed towards their completion. From the favorable nature of the country, these roads will be constructed at an average cost of about $12,000 per mile. All of them can be prepared for the iron by the people along their lines. For this, and their equpment, most if not all of them, will be obliged to resort to a sale of bonds of the companies and of the various municipal corporations through which they run.

The above by no means embraces all the railway projects of Indiana. The *Evansville and Mount Carmel railroad* is under contract to Princeton, a distance of 28 miles from the Ohio. This road it is proposed to extend to Vincenes, 28 miles from Princeton, and from thence by one branch, to Terre Haute, 65 miles, and by another to Indianapolis, 110 miles.

The *Michigan and Ohio railroad* is to extend from Logansport, on the Erie and Wabash canal, to Anderson, on the Indianapolis and Bellefontaine railroad, and thence to New Castle and Knightstown; thus opening a communication with the Ohio at Madison and Cincinnati. Another road will soon be commenced, to connect the Erie and Wabash canal, and the roads running north from Indianapolis, with the Michigan Central and Michigan Southern railroads. This road will open a direct railway communication between Chicago and the Ohio.

The Michigan Southern Railroad, which is now being extended west to Chicago; and is to run from Cold Water, through Constantine, Michigan; and Goshen, Laport, South Bend and Michigan City, Indiana. No part of this road in Indiana has yet been commenced upon. From Hillsdale to Cold Water in Michigan, a distance of about 22 miles, the road has recently been put under contract.

The Michigan Central Railroad is now extending its road from New Buffalo, its present western terminus, around Lake Michigan to Chicago.

The above embraces most of the railroads which are now being vigorously prosecuted in Indiana. A few years will double this extensive list in this State, till every farmer is within convenient distance of one. This State is not alone in the West in the construction of railroads. She is but an example of which every Western State is doing. In the east we have but a faint idea of the magnitude and extent of public works that are going on in that section of the country, or of the ardor and enthusiasm enlisted in their prosecution.

☞ If the Chicago Democrat thinks that articles from our paper are worth copying, we will thank it to give credit for them, and not introduce them as editorials into its own columns.

Tennessee.

East Tennessee and Georgia Railroad.—A gentleman connected with this road writes that—

"A stockholders meeting was held on the 20th ult., to act upon the acceptance of a loan of $350,000 in State bonds, recently granted by the Legislature of the State, to be expended in the purchase of iron; the act requiring the heavy T or bridge rail to be laid. The vote upon the acceptance was unanimous, and there is not a doubt, that the road will be immediately completed to the Tennessee river, a distance of 80 miles from Dalton, Georgia, and but 30 from Knoxville, and you may now set it down as a fixed fact, that this important link in the great southeastern chain of railroads from New Orleans, is to be finished ahead of any of the other connecting roads.

Ohio.

New Railroads Chartered.—The following is a list of the railroad companies chartered by the Legislature of Ohio at its last session, viz:—Springfield and Mansfield, Ohio and Indiana, West Liberty Central, Franklin Pickaway and Ross county, Bellefontaine and Columbus, Mohegan Valley, Toledo, Norwalk and Cleveland, Ripley and Leesburgh, Gallipolis, Jackson and Chillicothe, Muskigum Valley, Steubenville and Wellsville, Monroe and Findlay, Cleveland and Maumee, Owl Creek Valley, and the Bucyrus and Toledo railrailroad companies, 15 in all. Seventeen acts were passed authorising the subscription by counties, cities and towns to the stocks in railroads. The same Legislature also incorporated 50 companies for the purpose of building plank roads.

Pacific Railway.

Philadelphia Convention.

We give in our present number a synopsis of the proceedings of the above convention held on the 1st instant. As far as its action was concerned it did but little, except to reiterate the positions taken by its predecessor at St. Louis, to declare the necessity of this work, and to urge upon Congress the adoption of the necessary steps preliminary to commencing actual operations. This is all that it could properly do. The adoption of any particular plan, or route, would be merely taking for granted what remains to be proved, and could only result in evil and delay. The tendency of the convention will be to give a renewed impetus to the popular sentiment which favors this work, to accelerate the action of Congress, and this is all we presume that its members had in view.

The great featnre of the convention is the letter of Mr. Fremont. We give it entire to our readers. If it may be relied upon, it will do more to secure an immediate commencement of the work than anything which has yet appeared, or than any conviction which has existed in the public mind.—Those best fitted to appreciate the difficulties in the construction of a railroad to the Pacific, have been the most sceptical as to its practicability. If Mr. Fremont's observations and information are reliable, the feasibility of the work is certainly demonstrated, and should further surveys confirm his statements, Congress will find itself compelled by the unanimous voice of our whole people to commence its *immediate* construction. The explorations of Mr. Fremont show how important a knowledge of the country becomes in forming any plan or route for this great work. How perfectly it illustrates the folly of all Mr. Whitney's schemes. He claims to be the first person who presented a *matured* plan of a railroad to the Pacific. His plan was matured with hardly the slightest knowledge of the facts upon which a feasible plan can be formed. His facts were summoned from his imagination to suit his theory, and when these are found to have no actual existence his whole plan vanishes into air. The great argument for an extreme northern route was the want of timber, on a more southern line. The exect reverse of this is the truth. We had always supposed that timber was much more abundant south of the line proposed by Mr. Whitney, than upon it.

The true course to be pursued by the friends of this work, is indicated in the resolution offered by Mr. Roberts. We hope to see it vigorously acted upon. Let such a demonstration be made, that Congress shall not dare to hesitate to act.

It will be seen that one of the resolutions offered by Mr. T. B. Florence, and referred to the committee on resolutions, adopts the plan of management of the road put forth by us in our paper of the 29th Sept. last.

OCEAN STEAM NAVIGATION.

In a few weeks we shall have a semi-weekly steam communication with Europe. The following steamers will run as regular packets:

Collins' Line.—Atlantic, Pacific, Arctic, Baltic, Adriatic.

Cunard's Line.—Asia, Africa, America, Caledonia, Cambria, Europa, Hibernia, Niagara, Canada.

Glasgow Line.—City of Glasgow.

Hanburgh Line.—Helena Slowman.

Bremen Line.—Washington, Hermann.

Havre Line.—Franklin.

The weekly trips of the Cunard steamers will commence on Saturday next, from Liverpool, and on the first of May from New York and Boston.—The Collins steamers will commence their semi-monthly trips on the 27th inst., and their weekly trips about the first of June. The Franklin will begin her trips to Havre next month, and her mate will be ready in the fall. The Bremen line now leaves Southampton and New York once a month. The City of Glasgow will leave Glasgow on the 16th inst. for New York, and thereafter leave each port in alternate months. The Helena Slowman is to leave Hamburgh on the 10th instant, and her trips will be bi-monthly.

According to this arrangement, we shall, in about a month hence, receive news every three days from Europe.

NEW RAILROAD MAP.

Septimus Norris, Esq., of the Schenectady Locomotive Works, is about publishing a map containing all the railroads in operation in the United States, showing the route of each road, the towns passed through, distances from town to town, and the grades.

Mr. Norris wishes us to say that he would feel himself under great obligations to those having maps, showing plans of roads, if they would forward him a copy; if not, to give the names of the towns through which the road passes, and the distances from one to the other, also the grades, and any other information that may be of interest.

A large amount of matter is excluded this week by the proceedings of the Philadelphia Conventton.

NOTICE TO SUBSCRIBERS.

Such of our Subscribers as wish for back numbers of our paper to complete their sets, or who may not have received the index of the past year, are requested to send for them without delay.

CONTRACTORS

Will find an unusually large amount of heavy work advertised in our paper, by very responsible companies.

RAILROAD IRON.

The attention of the iron interest is invited to the advertisement of the Virginia and Tennessee railroad for a large quantity of iron for this road.

The Railroad Journal.

The American Railroad Journal was the earliest work published in any part of the world devoted to the railway interest. In its pages is to be found the only full and complete history of railway progress, the only authentic record of the discoveries and improvements which the greatest of practical sciences has drawn forth and perfected.

The means of enhancing its value under its present proprietorship are far greater than when we assumed its charge about one year ago. It will continue to furnish the best practical results as to the construction and working of railroads, the details of progress in steam navigation, commerce, mining, manufactures, banking and the mechanic arts.

The best practical talent that can be enlisted in the country is engaged to supply its pages. The mining interest will find evidence of the first systematic attempt to give a full view of the iron, copper and lead ores of the country, with the results of practical working. In all the branches of mechanical industry we seek to discard the crude conceits of unskilled pretension, the thousand useless novelties issuing from the Patent Office, and to give encouragement to whatever can be made useful in relieving the wants, in ministering to the pleasures, or contributing to the advancement of the race.

We invite contributions to its pages from all who sympathise in our labors, information in any form from those most interested in the progress of mechanical invention, and substantial support from all who are willing to aid us in the arduous duties of our position.

Back Volumes of the RAILROAD JOURNAL

From its commencement can be had on application to this office.

Rosendale Cement.

THE NEWARK AND ROSENDALE LIME AND CEMENT CO. are now manufacturing at their works in NEWARK, N. J., and Ulster county, N.Y., a very superior article of *Hydraulic Cement*—also Lime Calcine Plaster, etc. Contractors and dealers will find it to their advantage to call or make application before purchasing elsewhere. All communications addressed to the subscriber, at Newark, N.J., will be punctually attended to.

1y*15 HENRY WILDE, Secretary.

Railroad Iron.

3,000 TONS C. L. MAKE 63½ lbs. per yard, now landing and to arrive.

Also contracts made for future delivery of above superior make English Iron.

300 Tons Banks Best Iron, Round, Square and Flat.
200 " English Bar " " " "
10 " 9-16 Square Iron for Railroad Spikes.

For sale in lots to suit purchasers by

DAVID W. WETMORE.

New York, March 26, 1850. 3m

To Contractors.

THE Election of Directors of the Queenston Suspension Bridge Company having taken place, the Company are now prepared to receive Plans for the Bridge and Tenders for its erection. All communications to be directed, GILBERT McMICKEN,

1m11* Queenston, Canada W.

To Miners and Mining Companies.

THE undersigned would respectfully call the attention of those persons engaged in mineral operations on Lake Superior to the following list of articles which will be sold on accommodating terms, viz:

600 bbls. Corn fed No. 1 Mess Pork.
500 " Stall fed Mess Beef.
25,000 lbs. "Sugar cured canvassed" Hams.
2,200 " Dried Beef.
60,000 " "Kiln dried" Corn Meal,
500 bush. White "Field" Beans.
300 " Canada" Peas.
500 " Dried Apples.
100 bbls. and half bbls. "cucumber" Pickles.
50 " Sour Krout.
30 bush. Onions.
1,000 Beefs' Tongues Smoked and in Pickle.
10,000 lbs. "Mould" Candles.
10,000 " "Hard" Soap.

Also, a full and large supply of all articles that may be required by Mining Companies and those connected with them. C. A. TROWBRIDGE,
127 Jefferson Avenue, Detroit, Michigan.

Pennsylvania Railroad.

PROPOSALS will be received at Blairsville, Indiana county, until the 18th of April next, for grading the Western Division of the Pennsylvania Railroad.

The work to be contracted for, embraces three short Tunnels, a number of Stone Bridges and Culverts, and some very heavy excavations and embankments.

For further information apply to EDWARD MILLER, Esq., Associate Engineer, at Blairsville.

J. EDGAR THOMSON, Chief Eng.
Engineers' Department, Pennsylvania R.R.,
Philadelphia, March 23, 1850.

Railroad Iron Wanted.

Virginia and Tennessee Railroad Office,
Lynchburg, Va., March 16, 1850.

PROPOSALS will be received at this Office until the 6th of May next, for the delivery in Lynchburg, of Iron Rails for the Virginia and Tennessee Railroad, to be manufactured in or near this town of Virginia Iron.

The said Iron to be made of the best pig metal, and to be delivered at the following times, and in the following quantities, viz: Six thousand tons in the year 1851, and the remainder (about 15,000 tons) for the whole road, equally, in the years 1852 and 1853.

Separate proposals will also be received for the delivery in Lynchburg, of pig metal, at times and in quantities sufficient for the manufacture of the rails above mentioned, said delivery to commence as early as the first of November, 1850.

The rails and the pig metal will be subjected to strict inspection; the rails are to weigh about 60 lbs. per yard.

At the same time, proposals will be received for the above quantity of Iron, manufactured any where else in America or in England, to be delivered in Lynchburg or Richmond, under the same general conditions as those prescribed for Virginia Iron, manufactured at Lynchburg. Satisfactory security will be required.

Proposals for delivering any portion of the above mentioned quantity, and at periods varying from those specified above, will be considered.

By order of the Board of Directors.
CHAS. F. M. GARNETT,
15tf Chief Engineer.

Notice to Contractors.

Ohio and Pennsylvania Railroad.

PROPOSALS will be received at the office of the Ohio and Pennsylvania Railroad Co., in the city of Pittsburg, until Wednesday, the 24th day of April, 1850, for the Grading and Masonry of the Railroad, from Allegheny city to the mouth of Big Beaver, a distance of twenty-four miles. Drawings and Specifications of the work to be let, may be seen at the office in Pittsburg, for one week previous to the letting, on application to Solomon W. Roberts, Chief Engineer, and information may be obtained at any time at the office of Edward Warner, Resident Engineer of the Eastern Division, New Brighton, Beaver County, Pa. The work is well worthy of the attention of good contractors.

The Grading and Masonry of the line in Columbiana County, Ohio, will be let at Salem, on Wednesday, the 8th of May.

By order of the Board of Directors.
15tf WM. ROBINSON, Jr.

W. Milnor Roberts,

Bellefontaine and Indiana Railroad, Marion, Ohio.

Notice to Contractors.

Bellefontaine and Indiana Railroad.

SEALED PROPOSALS will be received at the Company's Office in Sidney, Shelby Co., Ohio, on and after Wednesday, May 5th, 1850, for doing the Grubbing, Clearing, Grading and Masonry, of such portions of the Bellefontaine and Indiana Railroad, as can be prepared for letting by the 15th.

The line extends from some point on the Cleveland, Columbus and Cincinnati Railroad, through Marion, Bellefontaine and Sidney, to the State Line, between Ohio and Indiana, a total distance of about 120 miles.

It is expected that the line from the eastern terminus to Marion, about 22 miles, and from Bellefontaine to Sidney, about 23 miles, will then be ready to let; and the remainder of the route as soon thereafter as it can be located and prepared.

Specifications and plans will be ready for inspection and all necessary information may be obtained on application at the Office of the Chief Engineer, in Marion, or to J. Pemberton, Resident Engineer, in Sidney, after the 5th of May.

By order of the Board of Directors.
W. MILNOR ROBERTS, Chief Eng.
Engineer's Office, Marion, Ohio,
March 18, 1850. 15tf

To Contractors.

SEALED PROPOSALS will be received at the Office of the Nashville and Chattanooga Railroad Company in Chattanooga until the 20th day of May next, for the graduation and masonry of the Chattanooga Division of said Road—embracing a distance of 27¼ miles.

The graduation will be heavy for about 15 miles, (in crossing Rackoon Mountain, and passing around Lookout Mountain bluffs), the balance, average work, The masonry will consist chiefly of cut stone Piers for Tennessee River Bridge, (about 4 000 Perches,) Piers for running Water Bridge, (about 2,000 Perches), and Pier for Lookout Creek Bridge, about 500 Perches.

Sealed proposals will also be received at the same time and place, for the graduation of 10 miles of the Eastern end of the Winchester Division—embracing some heavy work. Also the masonry of Elk River and Widow's Creek Bridges.

Plans and Profiles of the Work will be exhibited, specifications furnished, and all other desired information given, on application to Mr. James A. Corry, the Engineer in charge of the work, at the Company's Office in Chattanooga, from the 10th of May until the day of letting.

Before making bids the line should be throughly examined. The depths of the Cuts and Embankments can be ascertained from the centre stakes. The work to be commenced immediately after the letting. And that portion from Chattanooga to Lookout Bluffs to be completed by the 1st of December next. The other sections to be finished successively on toward the West end of the Division—the last by the 1st of October, 1851.

The most satisfactory testimonials will be required. The payments will be made in cash—reserving the usual 20 per cent. until the completion of the work.

By order of the Board.
JAMES H. GRANT, Chief Eng.
Nashville, Tenn., March 14, 1850.

TO CONTRACTORS.

NOTICE is hereby given, that from 30 to 60 miles of the Orange and Alexandria Railroad will be ready for examination between 1st and 15th of April next. The road passes through a very healthy and fertile region, and embraces an amount of work every way worthy of the attention of able and experienced men.

The Company prefers to let the whole work of construction in contracts of not less than 30 miles, and for that purpose parties wishing further information are invited to call at the office in Alexandria.

The bids will be made on a basis of payments in cash to the amount of 85 per cent, and the remaining 15 per cent in the stock of the company. They must be sent to this office not later than the 16th day of April next, to be submitted to the meeting of the Board of Directors to be held on the 18th of the same. By order of the Board. T. C. ATKINSON,
Chief Engineer.

For the information of parties at a distance, it is well to state that the *Orange and Alexandria Railroad* is about 90 miles long, and extends from Alexandria through Fairfax, Prince William, Fauquier, Culpeper and Orange counties to Gordonsville, a point on the completed portion of the *Virginia Central Railroad*, formerly called the Louisa railroad.

An inspection of the map will show that its connections promise to make it as valuable a thoroughfare as any in the Union.

American Railway Guide,

AND POCKET COMPANION FOR THE

UNITED STATES;

CONTAINING Correct Tables, shownig the time for starting of trains from all stations, distances, fares, etc., on all the Railway lines in the U. States; also many of the principal Steamboat and Stage routes —accompanied by a complete Railway Map. Price, single copies 10 cts., or $1 per annum. Published on the first of every month, corrected from returns furnished by the Railway Superintendents throughout the Union.

This book has been compiled somewhat on the plan of Bradshaw's Guide, with such improvements in size, form and arrangement as have seemed desirable; and the publisher confidently hopes it will not be found liable to the objections of incompleteness and incorrectness, which have been made, and justly too, against various other similar works heretofore issued.

The subscriber having had the management of the NEW YORK PATHFINDER almost from its commencement, has enjoyed superior facilities in obtaining information relating to the thoroughfares of travel, and is therefore well qualified to prosecute with success the arduous undertaking of furnishing a complete and correct national guide book.

STRINGER & TOWNSEND, General Agents, 222 Broadway: and sold also by Booksellers and Periodical Dealers generally throughout the country; also on all the Railways and Steamboats.

CURRAN DINSMORE, Publisher.
N. Y. Pathfinder Office,
123 Fulton St., New York City.

Great American Engineering

AND MECHANICAL WORK, just published in medium folio, 75 cts.

Part III of "Specimens of the Stone, Iron and Timber Bridges, &c. &c. of the United States Railroads." By George Duggan, Architect and Civil Engineer.

The present part contains beautifully executed plans, elevations, sections and isometrical views of the elegant timber arch 275 feet span, at Cascade Creek, Pa. on the line of the N. Y. & Erie R. R., and of a plank bridge 100 feet span across the Mahawk River near Rome, on the line of the U. and S. R.R. with the specifications, estimates, bills of timber, iron, etc.

N.B.—This work is published by subscription of the most eminent in the engineering profession of the U. States, and will be completed in 12 parts, at 75 cents each to those who remit their names and subscriptions before the 1st May next, after which the price will be raised to $1 per part.

To those making a present remittance of $5, and the remainder $4, when they have been supplied with the first six parts, the work will be forwarded regularly as published. Parties remitting $9 shall receive it monthly POST-FREE in any part of the United States.

"It is a work that was a great desideratum, and must prove of great benefit to the engineering profession generally, and especially to the tyro in practical engineering and mechanical knowledge; in truth it strikes us, that it would require years of labor and patient toil on the part of a young engineer to prepare the drawings, and collect the information that will be embodied in this work, and can now be secured for the trifling sum of $9"—[Scientific Amer. March 16, 1850.

In connection with this subject (Iron Railroad Structures) we take occasion to call attention again to Mr. Duggan's valuable and expensive publication, exhibiting drawings, with full descriptions of the various stone, iron and wooden bridges, viaducts, tunnels, culverts, etc., of all the Railroads in the United States. Mr. Duggan is an accomplished Architect and Civil Engineer, who came from Ireland to this country to exercise his profession; but finding Railroad construction here, in many respects, different from that he had been accustomed to in Europe, he applied himself to the study of our system; and the fruits of his researches and investigations embodied in this work, are well calculated to meet the exigencies of engineers, and to assist draughtsmen, bridge builders, mechanics and students. The work will be supplied to subscribers only, in 12 parts, at 75 cents each.—[N. Y. Journal of Commerce, Feb. 14, 1850.

Published by GEORGE DUGGAN,
172 East Broadway, New York.

CAUTION.

RAILROAD COMPANIES and others are hereby cautioned against using or vending our improvement for easing the lateral motion as applied on Railroad Cars. Letters Patent having been granted to us in 1841, any party or parties so making or using said improvement without license from us will be proceeded against according to law.

DAVENPORT & BRIDGES.

WHISTLER MONUMENT Association.

MAJOR T. S. BROWN having, in leaving this country, resigned his office as Treasurer of this Association, the Committee oppointed for that purpose have selected as his successor GEO. M. DEXTER, Esq., of Boston.

Those desiring to subscribe will therefore please direct their communications to Geo. M. Dexter, Civil Engineer, etc., Boston, Mass.

A. W. CRAVEN, Secretary, etc.

New York, February 22, 1850.

United States Railroad Guide and Steamboat Journal.

CONTAINING OFFICIAL TIME ADVERTISEMENTS, Tables of Stations, Distances, Fares, Time, etc., with much miscellaneous matter for the travelling public. Price 12 cents a copy. Yearly subscription $1. Published at 43 Ann street, New York.

Henry J. Ibbotson,

IMPORTER of Sheffield and Birmingham Goods. Also, Agent for the Manufacture of Telegraph Wire. 218 PEARL ST., NEW YORK.

FOWLER M. RAY'S Patent India-rubber Railroad CAR SPRING.

New York and Erie Railroad Shops.
Piermont, March 26, 1850.

This will certify that from practical experience in the use of Fowler M. Ray's India rubber Car Springs, I believe them to be far superior to any others now in use.

I have never known them to be affected by any change of temperature, as other Rubber Springs have been affected on this road.

I am at the present time repairing a Passenger Car that Mr. Ray and myself mounted with his springs about two years and eight months since.

The springs are at the present time as perfect, to all appearances, as when first applied to the car.

Respectfully yours,
HORACE B. GARDNER,
Foreman of the Car Shops.

—

Old Colony Railroad Office,
Boston, March 6, 1850.

EDWARD CRANE, Esq.,
President New England Car Co.,

Dear Sir: In compliance with your request I would state that the Old Colony Railroad Comp'y have had in use upon their road, India-rubber Springs furnished by your company, for more than eighteen months past, during which time they have been extensively used under Passenger and Freight Cars, Locomotive Tenders, and for Drawer and Buffiing Springs, with the most perfect success. The elasticity and consistency of the Rubber has never been unfavorably affected by either extremes of heat or cold—and from the experience which we have had in the use of Rubber Springs, I think them well adapted for railroad purposes—and therefore we have for some months past used Rubber almost exclusively, in all places where springs are required.

Respectfully yours, etc.,
JAS. H. MOORE,
Supt. O. C. Road.

—

Troy, February 27, 1850.

We have been using your India-rubber Car Springs for nearly two years—and we take pleasure in saying that in our opinion the rubber has to a certain extent already, and may eventually entirely suspersede all other Springs for Railroad Car purposes. We now use it entirely for Draw Springs and Bumpers, considering it better and lighter than steel.

During our two years' experience in the use of it, we have not known any to lose their elasticity, or fail in any way; and we cheerfully recommend the rubber for railroad car springs. Very respectfully,
EATON, GILBERT & CO.

—

Fall River, February 2, 1850.

In answer to yours of the 20th ult. I would say that this company has for some 10 or 12 months past been using "Ray's India-rubber Springs." We have applied them to both passenger and freight cars with uniform success. They have invariably preserved their elasticity and consistency through all the extremes of weather; and we are now applying them whenever the steel spring fails. I am well satisfied that they are particularly adapted for railroad purposes.

Very respectfully yours,
GEO. HAVEN,
Supt. Fall River Railroad.

Supt. Office N.Y. & H. R.R.,
New York, March 8, 1850.

This is to certify that we have used the Rubber Springs manufactured by Mr. F. M. Ray for the past twenty months, "both for Passenger and Freight Car Springs and Bumpers, and of different sizes," and have in every case given entire satisfaction, and I consider them the best spring now in use

M. SLOAT, Supt.

—

Jersey City, March 9, 1850.

This is to certify that the present form of Mr. F. M. Ray's India-rubber Car Spring I consider far superior to the form of Disk, having used both forms.

I take pleasure in recommending these springs to all railroad companies. DAVID H. BAKER,
Foreman of Car Shop of N.J. R.R. & Trans. Co.

—

Harlem R.R. Depot,
New York, March 7, 1850.

This is to certify that we have used Mr. F. M. Ray's India-rubber Springs for over eighteen months, and find them to be easy and durable, and recommend them to railroad companies as being superior to anything we have tried. J. M. SMART,
Foreman at 42d St. Depot.

—

Office of the New Jersey Railroad Co.,
Jersey City, March 7, 1850.

This is to certify that we have had Mr. F. M. Ray's India-rubber Springs in constant use under our cars, and as Bumper Springs for upwards of two years, and they have in every way given perfect satisfaction.

The present form of spring we deem far superior to the form of Disk, having used both forms, although we have none of those made in Disks at present in use.

We take pleasure in recommending these springs to all railroad companies.

J. P. JACKSON, Vice Prest.
New Jersey Railroad and Trans. Co.

—

Roxbury, February 28, 1850.

In compliance with your request, I take great pleasure in stating the result of my experience in the use of "Ray's Patented Vulcanised India-rubber Car and Engine Springs." We have used them nearly two years, and never had one fail in any way. The *cold weather* does not affect *them*, as it has *other* rubber springs we have used.

With sixteen years' experience as superintendent of machinery on the Boston and Providence railroad, I take pleasure in saying that your springs are the best we ever used, or I ever saw used elsewhere. We have 20 cars rigged with them, of which I can say that the springs are as good now as when first applied. I put 24 lbs. of the rubber under the forward end of one of our heaviest engines, taking off 250 lbs. of steel springs—it has been in use 18 months, and is in as good condition now as when first put under the engine.

Very respectfully yours,
GEO. S. GRIGGS,
Supt. of Machinery, Boston and Prov. R.R.

—

Boston, March 5, 1850.

In answer to your enquiry about India-rubber Springs, I have to say that we have used them to a considerable extent on both freight and passenger cars, and also on several of our tenders; and I am very well satisfied that they answer all the purposes for which they are intended. I believe the India-rubber will soon supersede all other springs for cars and tenders. Yours truly, S. M. FELTON,
Supt. Fitchburg Railroad.

—

New York, March 11, 1850.

I have used the Patent India-rubber Spring purchased of Mr. Ray, upon the cars of the New York and New Haven Railroad, and have found them efficient and economical; and when applied to the axles and draw springs, believe them to be quite equal to any in use. I have found a combination of these springs with a steel spring under the transom beam a very satisfactory arrangement, and am now using this plan in all new cars. Yours respectfully,
ROBERT SCHUYLER.

—

February 25, 1850.

From practical observation of the use of the India-rubber Car Springs, manufactured and sold by your company, we are entirely satisfied in their application, and do not hesitate to recommend them as elastic, durable, requiring no repairs for years, and retaining their consistency during all extremes of weather. We have applied them for the past two years, and consider them superior for all railroad purposes.

Yours truly,
OSGOOD BRADLEY, Car Builder, Worcester.
T. & C. WASON, do. Springfield.
DEAN, PACKARD & MILLS, do. do.
DAVENPORT & BRIDGES, do. Cambridgeport.

Office New Jersey Railroad Co.,
Jersey City, March 8, 1850.

FOWLER M. RAY, Esq.,

Dear Sir: In answer to your enquiries respecting the operation of the Vulcanised Rubber Springs, purchased by our company from you some two years since. I reply that they are superior to any spring in use, (that I have either seen or heard of).

The improved form of your spring, consisting of a solid piece of vulcanised rubber with bands on the outside, is far superior to your first form, consisting of disks of rubber with metallic plates interposed.

The last named form was tried, if you recollect, at a much earlier period; and then was replaced by your last form.

I have no hesitation in saying that your springs have given entire satisfaction, and most cheerfully recommend them to railroad companies throughout the country for the following reasons:

1st. The cost is 30 per cent. less.

2d. Saving of weight on each car of 8 wheels from 700 to 800 lbs.

3d. Less care and attention is required, as they are not liable to get out of repair.

4th. A great saving is secured in the wear and tear of the cars and rails from their great elasticity.

5th. The freedom from noise.

6th. There is greater safety in case of accident, as they cannot be broken.

7th. The comfort of passengers is enhanced sufficiently to pay the expense, waiving all the other reasons that I have given.

Should this fail to satisfy any person enquiring, you are at liberty to refer to me, No. 150 Washington St., Jersey City. Yours respectfully,
T. L. SMITH, Supt.

Passenger Car Linings.

THE Advertiser continues to make to order the Enamelled Car Linings which have been so highly approved the last three years, and are now exclusively used by all the Northern Railroads. No pains are spared to get out new styles, and adapt them to the tastes of every consumer.

Orders addressed to CHARLES STODDER, No. 75 Kilby street, Boston, will have prompt attention.

March 23, 1850. 2m

P. H. Griffin,

Corner of Steuben and James Sts. Albany, N.Y.,

CONTINUES to manufacture copper flues for locomotive boilers, brewers' coppers, stills, tanner heaters, etc. Copper work in general, at the shortest notice. He has constantly on hand brass cocks, brass valves, copper pumps of every variety.

Orders promptly attended to. 1y14

To Practical Machinists.

AN excellent opportunity now occurs to a practical Machinist, of WELL ESTABLISHED REPUTATION, and some capital, to engage extensively in the STEAM ENGINE, BOILER AND FOUNDRY BUSINESS.

An establishment is now ready for business, ample in all its details, including extensive wharf room, for any sized steamboats, and from its position, if properly conducted, will doubtless command a large share of business.

A practical Machinist, as a partner is required, to conduct the whole establishment: and only those FULLY COMPETENT need apply. Address (post paid) "MACHINE CO.," Box No. 741, Philadelphia, Pa.

1m14

Spikes, Spikes, Spikes.

ANY person wishing a simple and effective Spike Machine, or a number of them, may be supplied by addressing J. W. FLACK,

March 6, 1850. Troy, N. Y.

Gas Fixtures.

FIXTURES for Burning Gas for Lighting Public Buildings, Private Dwellings, Stores and Factories, manufactured by the subscriber in great variety. Orders by Mail, or left at the Factory on Causeway street, will be promptly attended to.

HENRY N. HOOPER & CO.

Boston, March 23, 1850. 6m13

To the Proprietors of Rolling Mills and Iron Works.

THE Undersigned—Proprietors of Townsend's Furnace and Machine Shop, Albany—are extensively engaged in the manufacture of Machinery and fixtures for Iron, and Copper Rolling Mills, and Iron Works. Having paid particular attention to the manufacture of *Rolls* (Rollers), both *chilled* and *dry-sand*, they feel confident that they can execute orders for such castings in a satisfactory manner. And to give assurance of this, they beg leave to refer to the following named persons, proprietors and managers of some of the most extensive rolling mills in the country, viz: Jno. F. Winslow, J. Tuckerman, H. Burden, W. Burtt, J. & J. Rogers, Saltus & Co., J. B. Bailey, L. G. B. Cannon, Hawkins & Atwater, etc., etc.

F. & T. TOWNSEND.

Albany, August 18, 1849.

Arch St. Machine Shop.

BIRKENBINE, MARTIN & TROTTER,
Makers of
STEAM ENGINES,
and
HYDRAULIC MACHINERY,
NO. 16 ARCH STREET,
PHILADELPHIA,

Will construct Steam Engines, Pumps, for Draining Mines and Land; supplying Water to Towns, Factories, Farms, etc;
Also, Street Stops, Fire Plugs, Water Tanks, and Hydraulic Rams, with
(BIRKINBINE'S PATENT VALVES.)
B., M. & T. contract for Warming and Ventilating Buildings by Steam or Warm Water.

THE NEWCASTLE MANUFACTURING Co. continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack Screws, Wrought Iron Work and Brass and Iron Castings, of all kinds connected with Steamboats. Railroads, etc.; Mill Gearing of every description; Cast Wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,
President of the Newcastle Manuf. Co.

Brown's Old Established SCALE WARE HOUSE,

NO. 234 WATER ST., NEW YORK.

THE Subscriber, Practical Manufacturer of Scales of every description, respectfully asks the attention of Railroad Companies to his Improved Wrought Iron Railroad Track and Depot Scales which for strength, durability, accuracy, convenience in weighing, and beauty of workmanship, are not surpassed by any others in this country.

He is aware that this is rather a bold assertion for him to make, yet he can say with confidence that they have but to be tried to give them precedence over all others. J. L. BROWN.

☞ Bank Scales made to order, and all Scales of his make Warranted in every particular.

References given if required. 4tf

ENGINEERS.

Bancks, C. W.,
Civil Engineer, Vicksburg, Miss.

Berrien, John M.,
Michigan Central Railroad, Marshall, Mich.

Buckland, George,
Troy and Greenbush Railroad.

Clement, Wm. H.,
Little Miami Railroad, Cincinnati, Ohio.

Cozzens, W, H.,
Engineer and Surveyor, St. Louis, Mo.

Davidson, M. O.,
Eckhart Mines, Alleghany Co., Maryland.

Fisk, Charles B.,
Cumberland and Ohio Canal, Washington, D. C.

Felton, S. M.,
Fitchburgh Railroad, Boston, Mass.

Floyd-Jones, Charles,
South Oyster Bay, L. I.

Gzowski, Mr.,
St. Lawrence & Atlantic Railroad, Montreal, Canada.

Gilbert, Wm. B.,
Rutland and Burlington Railroad, Rutland, Vt.

Grant, James H.,
Nashville and Chattanooga R. R., Nashville, Tenn.

Harry, P.,
Binghamton, New York.

Holcomb, F. P.
Southwestern Railroad, Macon, Ga.

Johnson, Edwin F.
New York and Boston Railroad, Middletown Ct.

Latrobe, B. H.,
Baltimore and Ohio Railroad, Baltimore, Md.

Miller, J. F.,
Worcester and Nashua Railroad, Worcester, Mass.

Morris, Elwood,
Schuylkill Navigation, Schuylklli Haven, Pa.

Morton, A. C.,
Atlantic and St. Lawrence Railroad, Portland, Me.

McRae, John,
South Carolina Railroad, Charleston, S. C.

Nott, Samuel,
Lawrence and Manchester Railroad, Boston,

Prichard, M. B.,
East Tennessee and Georgia R. R., Cleveland, Tenn.

Roebling, John A.,
Trenton, N. J.

Roberts, Solomon W.,
Ohio and Pennsylvania Railroad, Pittsburgh, Pa.

Sanford, C. O.,
South Side Railroad, Virginia.

Schlatter, Charles L.,
Northern Railroad (Ogdensburg), Malone, N. Y.

Sours, Peter,
Rahway, New Jersey.

Stark, George.,
Bost., Con. and Mont. R. R., Meredith Bridge, N. H.

Steele, J. Dutton,
Pottstown, Pa.

Trimble, Isaac R.,
Philad., Wil. & Baltimore Railroad, Wilmington, Del.

Tinkham, A. W.,
United States Fort, Bucksport, Me.

Thomson, J. Edgar.,
Pennsylvania (Central) Railroad, Philadelphia.

Whipple, S.,
Civil Engineer and Bridge Builder, Utica, N. Y.

Williams, E. P.,
Auburn and Schenectady Railroad, Auburn, N. Y.

Williams, Charles H.,
Milwaukie, Wisconsin.

Wormeley, Preble,
Central Ohio Railroad, Zanesville, Ohio.

HOTELS.

JONES' HOTEL,
NO. 152 CHESTNUT STREET,
PHILADELPHIA.
BRIDGES & WEST, ... Proprietors.

DUNLAP'S HOTEL,
On the European Plan,
NO. 135 FULTON STREET,
Between Broadway and Nassau St.,
NEW YORK.

BUSINESS CARDS.

Nathan Caswell,
METAL BROKER, 69 WALL ST., N.Y.
For the Purchase and Sale of Railroad Iron (new and old,) Boiler Plates, Pig and Bar Iron, Lead, Tin, Copper, Spelter, etc. Refers to
Messrs. Boorman, Johnston, & Co., New York.
" Grinnell, Minturn & Co., "
" Barston, Pope & Co., "
" Earps & Brink, Philadelphia.
" E. Pratt & Brother, Baltimore.
John Barstow, Esq., Providence.
Lewis Bullard, Esq., Boston.
February 9, 1850. 6m*

VanRensselaer Stevens,
Sup't Transortation Providence and Worcester R.R., Providenc, R.I. Has had 13 years' experience in Operating Railroads. Will go South or West if applied to.

J. & Riley Carr,
Manufacturers of Cast, Shear, German and Blister
STEEL,
Of all Descriptions, Warranted Good.
BAILEY-LANE WORKS, SHEFFIELD.

R. S. DENTON, *Agent,*
NO. 20 CLIFF ST., NEW YORK.

STEEL AND FILES.
R. S. Denton,
20 CLIFF STREET, NEW YORK,
AGENT FOR
J. & Riley Carr's
BAILEY-LANE WORKS, SHEFFIELD,
Manufacturers of Cast, Shear, German and Blister
STEEL
Of all descriptions. *Warranted* Good
FILES.
Manufacturers of Machinists' Warranted Best Cast Steel *Files*, expressly for woring upon Iron and Steel, made very heavy for recutting.
☞ A full Stock of *Steel* and *Files* at all times on hand. 6m4

Cumberland, (Md.,) Coals for Steaming, etc.
ORDERS RECEIVED FOR AND FILLED by J. COWLES, 37 Wall St., N. Y.

George O. Robertson,
BROKER IN SCOTCH AND AMERICAN PIG IRON;
Bar Iron, Lead, Spelter, Tin, Copper, etc.,
No. 4 Liberty Place, MAIDEN LANE,
(Near Broadway,)
NEW YORK

Manufacture of Patent Wire ROPE AND CABLES,
For Inclined Planes, Suspension Bridges, Standing Rigging, Mines, Cranes, Derrick, Tillers, &c., by
JOHN A. ROEBLING, Civil Engineer,
TRENTON, N. J.

Samuel D. Willmott,
MERCHANT, AND MANUFACTURER OF
CAST STEEL WARRANTED SAWS,
IMPORTER OF THE
GENUINE WICKESRLY GRINDSTONES
NO. 8 LIBERTY STREET,
NEW YORK.

Doremus & Harris,
ANALYTICAL & CONSULTING CHEMISTS,
179 BROADWAY, NEW YORK.
☞SCHOOL OF CHEMISTRY.☜

Dudley B. Fuller & Co.,
IRON COMMISSION MERCHANTS,
No. 139 GREENWICH STREET,
NEW YORK.

Manning & Lee,
GENERAL COMMISSION MERCHANTS,
NO. 51 EXCHANGE PLACE,
BALTIMORE.
Agents for Avalon Railroad Iron and Nail Works. Maryland Mining Company's Cumberland Coal 'CED —'Potomac' and other good brands of Pig Iron.

Railroad Car Manufacturer's Furnishing Store.

F. S. & S. A. MARTINE,

IMPORTERS AND MANUFACTURERS OF

RAIL ROAD CAR & CARRIAGE LININGS,

PLUSHES, CURTAIN MATERIALS, ETC.,
112 WILLIAM ST., NEAR JOHN.

3-4 and 6-4 Damasks, Union and Worsted; Moreens, Rattinetts, Cloths, Silk and Cotton Velvets, English Buntings

S. W. Hill,

Mining Engineer and Surveyor, Eagle River, Lake Superior.

Alfred W. Craven,

Chief Engineer Croton Aqueduct, New York.

Starks & Pruyn,

MANUFACTURERS OF ALL KINDS OF

STEAM BOILERS,

52 and 54 Liberty, corner of Pruyn street

Nathan Starks, Wm. F. Pruyn, ALBANY. Special Partner R. H. Pruyn.

Iron Railing, Bank and Vault Doors, Iron Shutters Bridge and Roof Bolts, Heavy Jobbing and Forging of all kinds.

☞ For particularss ee Adv. in another column.

To Engineers and Surveyors.

E. BROWN AND SON Mathematical inst. makers No. 27 Fulton Slip, New York, make and keep for sale, Theodolites, Levelling inst., Levelling rods, Surveyors Compasses, and Chains, Cases of Mathematical drawing insts. various qualities, together with a general assortment of Ivory Scales and small insts. generally used by Engineers.

Samuel Kimber & Co.,

COMMISSION MERCHANTS

WILLOW ST. WHARVES, PHILADELPHIA.

AGENTS for the sale of Charcoal and Anthracite Pig Iron, Hammered Railroad Car and Locomotive Axles, Force Pumps of the most approved construction for Railroad Water Stations and Hydraulic Rams, etc., etc.

July, 27, 1849.

James Herron, *Civil Engineer*,

OF THE UNITED STATES NAVY YARD,
PENSACOLA, FLORIDA.,

PATENTEE OF THE

HERRON RAILWAY TRACK.

Models of this Track, on the most improved plans, may be seen at the Engineer's office of the New York and Erie Railroad.

To Railroad Companies.

—WROUGHT IRON WHEELS—
SAFETY AND ECONOMY.

NORRIS' LOCOMOTIVE WORKS,
SCHENECTADY, NEW YORK,

Are Manufacturing Wrought Iron Driving, Truck, Tender, and Car Wheels—made from the best American Iron. Address E. S. NORRIS.

May 16, 1849.

Machinery Warehouse.

S. C. HILLS, No. 43 Fulton street, New York, has constantly for sale Steam Engines, Boilers, Lathes, Chucks, Drills, Planers, Force and Suction Pumps; Tenoning, Morticing and Boring Machines, Shingle Machines, Bolt and Nut Machines, Belting, Oil, Iron and Lead Pipe; Rubber, Percha and Leather Hose, &c., &c.

S. C. H.'s arrangements with several machine shops are such that he can supply, at very short notice, large quantities of machinery.

November 23, 1849.

Cruse & Burke,

Civil Engineers, Architects and Surveyors,
Office, New York State Institution of Civil Engineers,
STATE HALL, ALBANY., N. Y.

Drawings, specifications and surveys accurately executed. Pupils instructed theoretically and practically at a moderate premium.

May 26, 1849.

Eaton, Gilbert & Co.,

Railroad Car, Coach and Omnibus Builders,
TROY, N. Y.

Hudson River Foundry,

THOMAS & COLLINS,
130 Quay Street, Albany.

To Railroad & Navigation Cos.

MR. M. BUTT HEWSON, *Civil Engineer*, offers his services to Companies about to carry out the surveys or works of a line of Navigation or Railroad. He can give satisfactory references in New York City as to his professional qualifications; and will therefore merely refer here to the fact of his having been engaged for upwards of two years conducting important Public Works for the British Government.

Communications will find Mr. Hewson at the office of the Railroad Journal, 54 Wall Street, New York.

Walter R. Johnson,

CIVIL AND MINING ENGINEER AND ATTORNEY for Patents. Office and Laboratory, F St., opposite the Patent office, Washington, D. C.

Cop Waste.

CLEAN COP WASTE, suitable for cleaning Railroad, Steamboat and Stationary Engines, constantly an hand and for sale by

KENNEDY & GELSTON,
5½ Pine St., New York.

October 27, 1849, 3m

Ranstead, Dearborn & Co.,

MANUFACTURERS OF
LOCOMOTIVE CRANKS AND CAR AXLES,
ALSO
WROUGHT IRON SHAFTING,
And All Kinds of Hammered Shapes.

Forge at Commercial Point, Dorchester,
Office 25 Foster's Wharf, opposite No. 211 Broad St.
BOSTON.

IRON.

Iron.

Pig Iron, Anthracite and Charcoal; Boiler and Flue Iron, Spring and Blistered Steel, Nail Rods, Best Refined Bar Iron, Railroad Iron, Car Axles, Nails, Stove Castings, Cast Iron Pipes of all sizes, Railway Chairs of approved patterns' for sale by

COLEMAN, KELTON & CAMBELL,
109 N. Water St., Philadelphia.

IRONDALE PIG METAL, MANUFACTURED and for sale by the Bloomsburg Railroad Iron Co.

DUDLEY FISHER, Treasurer.
75 N. Water St., Philadelphia.

Railroad Iron.

500 Tons, afloat, weighing 57 pounds per lineal yard, for sale by

COLLINS, VOSE & CO.,
158 South St.

New York, November 17, 1849. 1m46

Railroad Iron.

1675 Tons, weighing about 61 lbs. per yard, 90 tons, weighing about 52 lbs. per yard, and 825 tons, weighing about 53½ lbs. per yard, of the latest and most approved patterns of T rail, for sale by

BOORMAN, JOHNSTON & CO.,
119 Greenwich street.

New York, Feb. 25, 1850.

N.B.—B., J. & Co are also prepared to take contracts for English rails, delivered in any of the Atlantic ports of the Unitad States.

Railroad Iron.

THE UNDERSIGNED, HAVING made arrangements abroad, are prepared to contract for the delivery of Foreign rails, of approved brands upon the most favorable terms.

They will also make contracts for American rails, made at their Trenton works, from Andover Iron, in whole or in part, as may be agreed upon.

They are prepared to furnish Telegraph, Spring and Market Wire; Braziers and Wire Rods; Rivets and Merchant Bars to order, all made exclusively from Andover Iron. The attention of parties who require iron of the *very best* quality for special purposes, is respectfully invited.

COOPER & HEWITT,
17 Burling Slip, New York.

February 15, 1850.

Glendon Refined Iron.

Round Iron, Band Iron, Hoop Iron,
Square " Flat " Scroll "
Axles, Locomotive Tyres,

Manufactured at the Glendon Mills, East Boston, for sale by

GEORGE GARDNER & CO.,
5 Liberty Square, Boston, Mass.

Sept. 15, 1849. 3m37

PATENT HAMMERED RAILROAD, SHIP & BOAT SPIKES.—The Albany Iron Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes from 2 to 12 inches in length, and of any form of head; From the excellence of the material always used in their manufacture, and their very general use for rail roads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works will be promptly executed.

JOHN F. WINSLOW, *Agent*.
Albany Iron and Nail Works, Troy, N. Y.

The above Spikes may be had at factory prices, of Erastus Corning & Co Albany; Merritt & Co., New York; E. Pratt & Brother, Baltimore, Md

LAP—WELDED
WROUGHT IRON TUBES
FOR
TUBULAR BOILERS,
FROM ONE AND A QUARTER TO SEVEN INCHES IN DIAMETER.

THE ONLY Tubes of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER & SON, Patentees,
28 Platt street, New York.

Railroad Iron.

THE UNDERSIGNED ARE PREPARED TO contract for the delivery of English Railroad Iron of favorite brands, during the Spring. They also receive orders for the importation of Pig, Bar, Sheet, etc. Iron.

THOMAS B. SANDS & CO.,
22 South William street,
February 3, 1849. New York.

Iron Store.

THE Subscribers, having the selling agency of the following named Rolling Mills, viz: Norristown, Rough and Ready, Kensington, Triadelphia, Pottsgrove and Thorndale, can supply Railroad Companies, Merchants and others, at the wholesale mill prices for bars of all sizes, sheets cut to order as large as 58 in. diameter; Railroad Iron, domestic and foreign; Locomotive tire welded to given size; Chairs and Spikes; Iron for shafting, locomotive and general machinery purposes; Cast, Shear, Blister and Spring Steel; Boiler rivets; Copper; Pig iron, etc., etc.

MORRIS, JONES & CO.,
Iron Merchants,
Schuylkill 7th and Market Sts., Philadelphia.

August 16, 1849. 1y33

Railroad Iron.

THE MOUNT SAVAGE IRON WORKS, Alleghany county, Maryland, having recently passed into the hands of new proprietors, are now prepared, with increased facilities, to execute orders for any of the various patterns of Railroad Iron. Communications addressed to either of the subscribers will have prompt attention. J. F. WINSLOW, *President*
Troy, N.Y.
ERASTUS CORNING, Albany
WARREN DELANO, Jr., N.Y.
JOHN M. FORBES, Boston.
ENOCH PRATT, Baltimore, Md.

November 6, 1848.

Railroad Iron.

THE SUBSCRIBERS ARE PREPARED TO take orders for Railroad Iron to be made at their Phœnix Iron Works, situated on the Schuylkill River, near this city, and at their Safe Harbor Iron Works, situated in Lancaster County, on the Susquehannah river; which two establishments are now turning out upwards of 1800 tons of finished rails per month.

Companies desirous of contracting will be promptly supplied with rails of any required pattern, and of the very best quality.

REEVES, BUCK & CO.,
45 North Water St., Philadelphia.

March 15, 1849.

Monument Foundry.

A. & W. DENMEAD & SON,
Corner of North and Monument Sts.,—Baltimore,
HAVING THEIR
IRON FOUNDRY AND MACHINE SHOP
In complete operation, are prepared to execute faithfully and promptly, orders for
Locomotive or Stationary Steam Engines,
Woolen, Cotton, Flour, Rice, Sugar Grist, or Saw Mills,
Slide, Hand or Chuck Lathes,
Machinery for cutting all kinds of Gearing.
Hydraulic, Tobacco and other Presses,
Car and Locomotive patent Ring Wheels, warranted,
Bridge and Mill Castings of every description,
Gas and Water Pipes of all sizes, warranted,
Railroad Wheels with best faggotted axle, furnished and fitted up for use, complete

☞Being provided with Heavy Lathes for Boring and Turning Screws, Cylinders, etc., we can furnish them of any pitch, length or pattern.

☞ Old Machinery Renewed or Repaired—and Estimates for Work in any part of the United States furnished at short notice.

June 8, 1849.

Iron Wire.

REFINED IRON WIRE OF ALL KINDS, Card, Reed, Cotton-flyer, Annealed, Broom, Buckle, and Spring Wire. Also all kinds of Round, Flat or Oval Wire, best adapted to various machine purposes, annealed and tempered, straightened and cut any length, manufactured and sold by

ICHABOD WASHBURN.

Worcester, Mass., May 25, 1849.

American and Foreign Iron.

FOR SALE,

300	Tons	A 1, Iron Dale Foundry Iron.
100	"	1, " " "
100	"	2, " " "
100	"	" Forge "
400	"	Wilkesbarre " "
100	"	"Roaring Run" Foundry Iron.
300	"	Fort " "
50	"	Catoctin " "
250	"	Chikiswalungo " "
50	"	"Columbia" "chilling" iron, a very superior article for car wheels.
75	"	"Columbia" refined boiler blooms.
30	"	1 x ¼ Slit iron.
50	"	Best Penna. boiler iron.
50	"	"Puddled" "
50	"	Bagnall & Sons refined bar iron.
50	"	Common bar iron.

Locomotive and other boiler iron furnished to order.

GOODHUE & CO.,
New York. 64 South street

American Pig, Bloom and Boiler Iron.

HENRY THOMPSON & SON,
No 57 South Gay St., Baltimore, Md.,

Offer for sale. *Hot Blast* Charcoal *Pig Iron* made at the *Catoctin* (Maryland), and *Taylor* (Virginia), *Furnaces; Cold Blas.* Charcoal Pig Iron from the *Cloverdale* and *Catawba*, Va., Furnaces, suitable for *Wheels* or *Machinery* requiring *extra* strength; also *Boiler* and *Flue Iron* from the mills of Edge & Hilles in Delaware, and *best quality Boiler Blooms* made from *Cold Blast Pig Iron* at the *Shenandoah Works*, Va. The productions of the above establishments can always be had at the lowest market prices for approved paper.

American Pig Iron of other brands, and *Rolled* and *Hammered Bar Iron* furnished at lowest prices. Agents for *Watson's Perth Amboy Fire Bricks*, and Rich & Cos. New York Salamander Iron Chests.

Baltimore, June 14, 1849. 6 mos

Wheel, Forge and Foundry Iron.

LOCUST GROVE Wheel Iron of great strength and superior chilling property.

Balt. Charcoal Forge Iron, from Patuxent, Curtis Creek and Gunpowder furnaces.

Elkridge Foundry Iron, of superior strength and softness. Anthracite and Charcoal Iron from Pennsylvania and Virginia. Gas and Water Pipes, Lamp Posts from Elkridge furnace.

LEMMON & GLENN,
6m9 62 Buchanan's Wharf, Baltimore.

Iron.

THE SUBSCRIBERS having resumed the agency of the New-Jersey Iron Company, are prepared to execute orders for the different kinds and sizes of Iron usually made at the works of the company, and offer for sale on advantageous terms.—

150 tons No. 1 Boonton Foundry Pig Iron.
100 " No. 2 do. do. do.
300 " Nos. 2 & 3 Forge do. do.
100 " No. 2 Glendon do. do.
140 " Nos. 2 & 3 Lehigh Crane do do.
100 " No. 1 Pompton Charcoal do.
100 " New-Jersey Blooms
50 " New-Jersey Faggoting Iron, for shafts

Best Bars, ¼ to 4 inch by ¼ to 1 inch thick.
Do do Rounds and Squares, ½ to 3 inch.
Rounds and Squares, 3-16 to 1 inch.
Half Rounds, ¼ to 1 in. Ovals & Half Ovals ¼ to 1¼ in.
Bands, 1¼ to 4 inch. Hoops, ½ to 2 inch.
Trunk Hoops, ½ to 1¼ in. Horse Shoe & Nut Iron.
Nail Plates. Railroad Spikes.

DUDLEY B. FULLER & Co., 139 Greenwich-st. and 85 Broad-st.

WILLIAM JESSOP & SONS' CELEBRATED CAST-STEEL.

The subscribers have on hand, and are constantly receiving from their manufactory,

PARK WORKS, SHEFFIELD,

Double Refined Cast Steel—square, flat and octagon.
Best warranted Cast Steel—square, flat and octagon.
Best double and single Shear Steel—warranted.
Machinery Steel—round.
Best and 2d gy. Sheet Steel—for saws and other purposes.
German Steel—flat and square, "W. I. & S." "Eagle" and "Goat" stamps.
Genuine "Sykes," L Blister Steel.
Best English Blister Steel, etc., etc., etc.

All of which are offered for sale on the most favorable terms by WM. JESSOP & SONS,
91 John street, New York.

Also by their Agents—
Curtus & Hand, 47 Commerce street, Philadelphia.
Alex'r Fullerton & Co., 119 Milk street, Boston.
Stickney & Beatty, South Charles street, Baltimore.
May 6, 1848.

Ogden & Martin's ROSENDALE CEMENT.

WE are prepared to enter into arrangements for supplying our Cement for public works or other purposes. We warrant the cement equal in every respect to any manufactured in this country. It attains a great degree of hardness, setts immediately under water, and is a superior article for masonry coming in contact with water, or requiring great strength.

For sale in tight barrels, well papered, at their office by OGDEN & MARTIN, 104 Wall st.

February 16, 1850. 1y*

The above cement is used in most of the fortifications building by government.

JOHNSON, CAMMELL & Co's Celebrated Cast Steel,

AND

ENGINEERING AND MACHINE FILES,

which for quality and adaptation to mechanical uses, have been proved superior to any in the United States. Every description of square, octagon, flat and round cast steel, sheet, shovel and railway spring steel, best double and single shear steel, German steel, flat and square, goat stamps, etc. Saw and file steel, and steel to order for any purposes, manufactured at their Cyclops Steel Works Sheffield.

JOHNSON, CAMMELL & CO.,
100 William St., New York.

November 23 1849.

Railroad Iron.

1,500 Tons weighing 58 lbs. per lineal yard.
500 " " 57 " "
500 " " 56 " "
500 " " 60 & 61 lbs, "

Also 2½x½ flat rails. All the above being of approved patterns. For sale by

DAVIS, BROOKS, & CO.,
68 Broad street.

N.B.—Rails imported on commission, or at a fixed price.

CUT NAILS OF BEST QUALITY, BAR IRON (including Flat Rails) manufactured and for sale by FISHER, MORGAN & CO.,
75 N. Water St., Philadelphia.

Railroad Iron.

OF ANY PATTERN AND WEIGHT,
Of a Favorite Brand,
And delivcrable in Bond, or Duty paid, at any Port of the U. S., contracted for on favorable terms, by

CHARLES ILLIUS,
20 Beaver St., New York.

Pig and other Iron also contracted for. Sole Agent for "*Baxter's Machine and Burning Oil*"—particularly adapted for "*Railroads*" and other Machinery—Preferred to Sperm by the many now using it, and 25 *per cent. cheaper.*

Railroad Iron.

THE Undersigned, Agents for Manufacturers, are prepared to contract to deliver Rails of superior quality, and of any size or pattern, to any ports of discharge in the United States.

COLLINS, VOSE & CO.,
158 South St.

New York, November 17, 1849.

To Steam Engine Builders.

THE Undersigned offer for sale, *at less than half its cost*, the following *new machinery*, calculated for an engine of 62 inches cylinder and 10 feet stroke, viz.

2 Wrought Iron Cranks, 60 inches from centre to centre.
1 Do. do. Connecting Rod Strap.
2 Do. do. Crank Pins.
1 Eccentric Strap.
1 Diagonal Link with Brasses.
1 Cast Iron Lever Beam (forked).

The above machinery was made at the West Point Foundry for the U. S. Steamer Missouri, without regard to expense, is all finished complete for putting together, and has never been used. Drawings of the cranks can be seen on application to

HENRY THOMPSON & SON,
No. 57 South Gay St., Baltimore, Md.

Sept. 12, 1849.

Ballard's Improved JACK-SCREW.

PATENTED.

THE ADVANTAGES OF THIS Screw for Stone Quarries, Railroads, Steam Boiler Builders, and for other purposes are superior to any other similar machine.

The improvement consists in being able to use either end of the screw, as occasion requires.

It is capable of raising the heaviest Locomotive with ease, being portable, strong and powerful, and not likely to get out of order.

Many Railroad Companies and Boiler Makers have them in use—by whom they are highly recommended.

JACK SCREWS,
of various sizes, power and price, constantly on hand at the manufactory.

No. 7 Eldridge Street,
near Division Street.

New York, Jan. 19, 1850.

To Railroad Companies and Contractors.

FOR SALE.—Two Locomotive Engines and Tenders, at present in use on the Beaver Meadow Railroad, being too light for their coal trains, but well calculated for either gravel or light passenger trains.

They weigh, in running order, about 8 tons each—having one pair of driving wheels 4 feet diameter, 4 truck wheels 30 inches diameter, with cylinders 10 in. diameter, and 18 inches stroke of piston. Tenders on 4 wheels. Address JAMES ROWLAND,
Prest. Beaver Meadow Railroad & Coal Co.,
Philadelphia.
or, L. CHAMBERLAIN, Sec'y,
at Beaver Meadow, Pa.

May 19, 1849. 20tf

SPRING STEEL FOR LOCOMOTIVES, TENDERS AND CARS.—The subscriber is engaged in manufacturing spring steel from 1¼ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address J. F. WINSLOW, *Agent*,
Albany Iron and Nail Works.

To Railroad Companies.

FOR SALE—A Second-hand Locomotive Engine and Tender, of about 10 tons weight, in good order, and *warranted to perform well.* Any company wanting a cheap engine for a passenger or light burden train, will rarely meet with an opportunity so favorable as the present. The engine and tender are in perfect running order, and will be tested to the satisfaction of any one wishing to purchase. Price $1,500.

Address J. B. MOORHEAD,
Frazer P.O., Chester county, Pa.

P.S.—The Engine can be seen by calling on H. Osmond & Co., Car-builders, Broad st., Philadelphia.

September 6, 1849.

India-rubber for Railroad Cos.

RUBBER SPRINGS—*Bearing and Buffer—Fuller's Patent—Hose* from 1 to 12 inches diameter. Suction Hose. *Steam Packing*—from 1-16 to 2 in. thick. *Rubber and Gutta Percha Bands.* These articles are all warranted to give satisfaction, made under Tyer & Helm's patent, issued January, 1849.—No lead used in the composition. Will stand much higher heat than that called "Goodyear's," and is in all respects better than any in use. Proprietors of railroads do not be overcharged by pretenders.

HORACE H. DAY,
Warehouse 23 Courtlandt street.

New York, May 21, 1849.

Fire Brick.

THE Subscribers have constantly on hand Rafford's Stourbridge, Oak Farms Stourbridge, Lister, Wortley, Red and White Welsh Fire Bricks, common and fancy shapes. Also,

ROOFING SLATES,

from the best Welch quarries, and of all sizes. Also,

COAL,

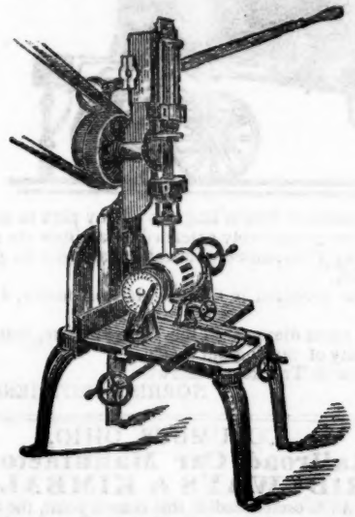
of all kinds—Liverpool Orrell and Cannel, Scotch, New Castle, Pictou, Sidney, Cumberland, Virginia, and all kinds of Anthracite coals. Also,

Pig Iron, Salt, etc., etc., for sale at the lowest market price. Apply to

SAMUEL THOMPSON & NEPHEW,
275 Pearl and 43 Gold Sts., New York.

November, 23, 1849.

Capt. Alfred Swingle's PATENT BORING & MORTISING MACHINE.



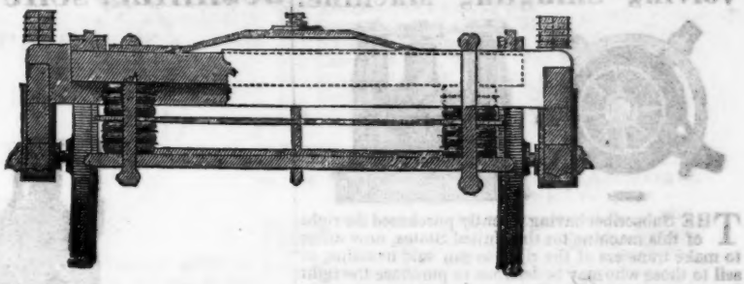
The above Machine was invented by A. SWINGLE, of Texas, in 1846, and Letters Patent were taken out in July, 1848. As a labor saving Machine it stands unrivalled even in these days of improvements. Its uses are innumerable; it may be successfully applied to Doors, Sashes, Carriages, Wheel-Hubs, and in fact to all kinds of work where the Auger and Chisel can be brought to bear.

The only limit to the speed of the working of this machine is the heating of the tools used. It will perform at least the labor of twelve men, and in vastly better manner, and can be worked equally well by steam power or by hand. It has been used and has given universal satisfaction.

For further information apply to H. B. TEBBETTS, 40 Wall St., New York, to whom all orders are to be addressed.

New York, December 15, 1849.

FULLER'S PATENT INDIA RUBBER CAR SPRINGS.



RAILROAD COMPANIES are cautioned, before purchasing Springs, to examine the actual patents and judge for themselves.

Persons, under the Title of the New England Car Company, seeking fraudulently to invade Fuller's rights have put forth so many statements for the purpose of misleading the public, that an enumeration of some facts is absolutely necessary, for the purpose of putting persons interested upon their guard.

Fuller's patent is for the application of Discs of India-rubber with Metal Plates, for forming Springs for Railway Cars and Carriages—either one disc and two plates, or ten discs and plates, or any other number, are equally covered by the patent. Fuller is not bound to the use of short discs—he may use long discs and plates.

Ray's patent is simply and wholly the forming of air tight rubber cylinders, with hoops or bands round the outside, and the combination of elasticity of India rubber, with the elasticity of atmospheric air confined in the cylinder, and in no part of his patent is he authorised to use the form of spring which he is now fraudulently supplying to Railroad Companies. Such springs are direct and positive infringements of the very letter of Fuller's patent.

Fuller's patent is dated October, 1845, Ray's patent, August, 1848.

The spring patented by Ray never has been put in operation, and never can be made useful for Railroad cars.

A mere experiment, even if made, it is well known does not prove an invention; and it is ridiculous for such parties to hope to mislead the Presidents and Superintendents of Railroad companies, by claiming the invention because Ray alledges he made an experiment—which Fuller had made before him—had actually brought into working order, and obtained a patent for—and this too before Mr. Ray states he made his experiment—and that experiment not claimed to have been applied to a car or carriage.

Besides, the invention could not have been developed until India rubber, properly Vulcanised, could be made of a sufficient thickness. In the United States the art of vulcanising rubber by steam heat, (by which means only can a body of rubber having any considerable thickness be vulcanised,) was not introduced until after the grant by the American government of the patent for springs to Fuller—whereas the process of vulcanising rubber by steam heat was invented in England about three years previously, and was used by Fuller there. This fact refutes entirely the claim of invention put forth by Mr. Ray, and proves the impossibility of his pretensions being true.

Fuller was the first and only inventor of the spring. A Mr. Dorr, whose connection with Mr. Goodyear is well known in this country, applied in England to Mr. Fuller, after he had published and patented his invention, and introduced another party for the purpose of obtaining the agency for the United States. They were furnished with a complete set of drawings and models, and with instructions to make arrangements for the supply of material of American manufacture—from that hour to the present not a single communication has been received from them. Some of these identical models have been traced into the hands of parties now seeking to invade Fuller's rights, and who have exhibited them as specimens of their own invention.

After this, the conveyance was made by Goodyear to certain parties here for the use for railroad springs of what he calls his Metallic rubber. Comment is unnecessary.

There are 5 or 6 different processes for the manufacture of vulcanised rubber, patented by as many different parties, some here, some in England, either of which would probably make good springs.

A large and powerful company has been organised under [illegible] patent, the particulars of which shall be given [illegible]

An action has been commenced against three railroad companies for infringement; and all other parties will assuredly be prosecuted if they continue farther to infringe upon Fuller's patent.

W. C. FULLER,

The only persons authorised to supply the Springs are G. M. KNEVITT, 38 Broadway, N. York, General Agent for the U. S.: and
JAS. LEE & Co., 18 India Wharf, Boston.
JOHN THORNLEY, Chestnut st., Philad.

FAIRBANKS' RAILROAD SCALES.—THE subscribers are prepared to construct at short notice, *Railroad* and *Depot Scales*, of any desired length and capacity. Their long experience as manufacturers—their improvements in the construction of the various modifications, having reference to strength, durability, retention of adjustment, accuracy of weight and dispatch in weighing—and the long and severe tests to which their scales have been subjected—combine to ensure for these scales the universal confidence of the public.

No other scales are so extensively used upon railroads, either in the United States or Great Britain;—and the managers refer with confidence to the following in the United States.

Eastern Railroad.	Boston & Maine Railroad.
Providence Railroad.	Providence and Wor. Road.
Western Railroad.	Concord Railroad.
Old Colony Railroad.	Fitchburg Railroad.
Schenectady Railroad.	Syracuse and Utica Road.
Balt. and Ohio Railroad.	Baltimore and Susq. Road.
Phila. & Reading Road.	Schuylkill Valley Road.
Central (Ga.) Railroad.	Macon and Western Road.

New York and Erie Railroad.

And other principal Railroads in the Western, Middle and Southern States.

E. & F. FAIRBANKS & CO.
St. Johnsbury, Vt.

Agents, { FAIRBANKS & Co., 81 Water St., N. York. / A. B. NORRIS, 196 Market St. Philadelphia.

April 22, 1849. 1y*17

Patent India Rubber Steam Packing.

THIS article, made by the subscriber, who alone is authorised to make it, is warranted to stand as high a degree of heat *as any that has been or can be made by any person*—and is the article which has made the reputation of India Rubber Steam Packing and the demand therefor. A large assortment of all thicknesses requisite for any description of engines, steam pipes, valves, etc., constantly on hand and for sale by the manufacturer and patentee, who will give every information regarding its properties, mode of use, etc. at the warehouse. JOHN GREACHEN, JR.,
98 Broadway, opposite Trinity Church.

New York, October, 1849.

Ibbotson, Brothers & Co's CELEBRATED CAST STEEL AND

Best Cast Steel Royal Improved Files, well known as better adapted for Engineers' and Machinists' purposes than any now in use in the United States.

Every description of Square, Octagon, Flat and Round Cast Steel, Sheet, Shovel and Railway Spring Steel, etc., and Steel to order for any purposes—manufactured at their works in Sheffield—and universally known by the old stamp "Globe."

HENRY J. IBBOTSON, Agent,
218 Pearl st., New York.

February 25, 1850.

MACHINERY.

Henry Burden's Patent Revolving Shingling Machine.

THE Subscriber having recently purchased the right of this machine for the United States, now offers to make transfers of the right to run said machine, or sell to those who may be desirous to purchase the right for one or more of the States.

This machine is now in successful operation in ten or twelve iron works in and about the vicinity of Pittsburgh, also at Phœnixville and Reading, Pa., Covington Iron Works, Md., Troy Rolling Mills, and Troy Iron and Nail Factory, Troy, N. Y., where it has give universal satisfaction.

Its advantages over the ordinary Forge Hammer are numerous: considerable saving in first cost; saving in power; the entire saving of shingler's, or hammerman's wages, as no attendance whatever is necessary, it being entirely self-acting; saving in time from the quantity of work done, as one machine is capable of working the iron from sixty puddling furnaces; saving of waste, as nothing but the scoria is thrown off, and that most effectually; saving of staffs, as none are used or required. The time required to furnish a bloom being only about six seconds, the scoria has no time to set, consequently is got rid of much easier than when allowed to congeal as under the hammer. The iron being discharged from the machine so hot, rolls better and is much easier on the rollers and machinery. The bars roll sounder, and are much better finished. The subscriber feels confident that persons who will examine for themselves the machinery in operation, will find it possesses more advantages than have been enumerated. For further particulars address the subscriber at Troy, N. Y. P. A. BURDEN.

Railroad Spikes and Wrought Iron Fastenings.

THE TROY IRON AND NAIL FACTORY, exclusive owner of all Henry Burden's Patented Machinery *for making Spikes*, have facilities for manufacturing large quantities upon short notice, and of a quality unsurpassed.

Wrought Iron Chairs, Clamps, Keys and Bolts for Railroad fastenings, also made to order. A full assortment of Ship and Boat Spikes always on hand.

All orders addressed to the Agent at the Factory will receive immediate attention.

P. A. BURDEN, *Agent*,
Troy Iron and Nail Factory, Troy, N. Y.

RAILROAD WHEELS.

CHILLED RAILROAD WHEELS.—THE UNdersigned are now prepared to manufacture their Improved Corrugated Car Wheels, or Wheels with any form of spokes or discs, by a new process which prevents all strain on the metal, such as is produced in all other chilled wheels, by the manner of casting and cooling. By this new method of manufacture, the hubs of all kinds of wheels may be made whole—that is, without dividing them into sections—thus rendering the expense of banding unnecessary; and the wheels subjected to this process will be much stronger than those of the same size and weight, when made in the ordinary way.

A. WHITNEY & SON,
Willow St., below 13th,
Philadelphia, Pa.

CHILLED RAILROAD WHEELS.—THE UNdersigned, the *Original Inventor* of the *Plate Wheel* with solid hub, is prepared to execute all orders for the same, promptly and faithfully, and solicits a share of the patronage for those kind of wheels which are now so much preferred, and which he originally produced after a large expenditure of time and money.

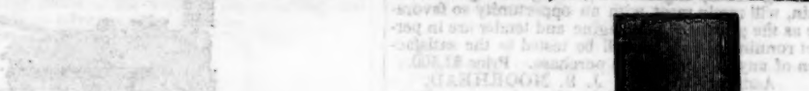
A. TIERS,
Point Pleasant Foundry.

He also offers to furnish Rolling Mill Castings, and other Mill Gearing, with promptness, having, he believes, the largest stock of such patterns to be found in the country. A. T.

Kensington, Philadelphia Co.,
March 12, 1848.

NORRIS' LOCOMOTIVE WORKS.

BUSHHILL, SCHUYLKILL SIXTH-ST., PHILADELPHIA,



THE UNDERSIGNED Manufacture to order Locomotive Steam Engines of any plan or size. Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusual advantages for prompt delivery of Machinery of superior workmanship and finish.

Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality.

Wrought Iron Tyres made of any required size—the exact diameter of the Wheel Centre, being given, the Tires are made to fit on same without the necessity of turning out inside.

Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS, BROTHERS

LAWRENCE'S ROSENDALE HYDRAULIC Cement. This Cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Flooms, and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE,
142 Front-street, New York.

☞ Orders for the above will be received and promptly attended to at this office. 32 1y.

PATENT MACHINE MADE HORSE-SHOES.

The Troy Iron and Nail Factory have always on hand a general asssortment of Horse Shoes, made from Refined American Iron.

Four sizes being made, it will be well for those ordering to remember that the size of the shoe increases as the numbers—No. 1 being the smallest.

P. A. BURDEN, *Agent*,
Troy Iron and Nail Factory, Troy, N. Y.

COLUMBUS, OHIO,

Railroad Car Manufactory.

RIDGWAYS & KIMBALL,

HAVE established at this central point, the manufacture of Passenger, Freight, Gravel and Hand Cars for Railroads, and assure all Western Railroad Companies that it will be their constant aim to procure the best materials and workmen, and to turn out the best kind of work at fair prices. Specimens may be seen on the Columbus and Xenia Railroad. The patronage of Railroad Companies is respectfully solicited. 1y8

To Inventors and Patentees.

OWEN G WARREN, ARCHITECT, Has had many years' experience as Agent for obtaining Patents, both in this country and Europe, and will transact such business promptly and reasonably. Persons at a distance can have their business done by correspondence—without the necessity of visiting this city or Washington. Office No. 94 Merchants Exchange, Wall st., corner of Hanover st., up stairs. 1y3

MR. HALE:—"The New England Car Co., having been engaged for the last six months in introducing the Vulcanized India-rubber Car Spaings upon the different railroads in this and other states, and having in particular introduced it upon the Boston and Worcester railroad with perfect success, were much gratified to find, by your paper of this morning, that the article had given satisfaction to the president of that corporation, and the terms of just commendation in which you were pleased to speak of it. But their gratification was scarcely equalled by their surprise, when, or arriving at the close of your paragraph, they found the results of all their labors attributed to a foreign source, with which the New England Car Co. has no connection. The material used on the Boston and Worcester railroad, and all the other railroads in this country, where any preparation of India-rubber has been successfully applied, is entirely an American invention, patented in the year 1844 to Charles Goodyear, of New Haven, Conn., and the application of it to this purpose and the form in which it is applied are the invention of F. M. Ray of New York. The only material now in use, and so far as has yet appeared, the only preparation of India rubber capable of answering the purpose, has been furnished under these patents by the New England Car Company, manufactured under the immediate inspection of their own agent. If any other should be produced, the right to use it would depend upon the question of its interference with Mr. Goodyear's patent. The New England Car Company have their place of business in this city at No. 99 State street, and are prepared to answer all orders for the Vulcanised India rubber Car Springs, of the same quality and of the same manufacture as those which they have already placed on your road, and most fo the other roads terminating in this city."

And yet Mr. Knevitt is using these experiments made upon the Springs of the Car Company to induce the public to purchase his springs, and is attempting to impose upon them the belief that the springs used were furnished by him! We ask whether such a course is honorable, or entitles his statements to much consideration from the public.

The above Springs are for sale 98 Broadway, New York, and 99 State street, Boston.

EDWARD CRANE Agent, Boston.
F. M. RAY, Agent, New York.

Boston, May 8, 1849.

NICOLL'S PATENT SAFETY SWITCH FOR Railroad Turnouts. This invention for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. It acts independently of the main track rails; being laid down or removed without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two castings and two rails; the latter, even if much worn or used, not objectionable.

Working models of the Safety Switch may be seen at Messrs. Davenport, Bridges & Kirk's Cambridge Port, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained, on application to the Subscriber, Inventor and Patentee.

G. A. NICOLLS,
Reading, Pa.

Railroad Lanterns.

COPPER and Iron Lanterns for Railroad Engines, fitted with heavy silver plated Parabolic Reflectors of the most approved construction, and Solar Argand Lamps; manufactured by

HENRY N. HOOPER & CO.,
No. 24 Commercial St. Boston.

August, 16, 1849. 6m33

NORRIS' LOCOMOTIVE WORKS,
SCHENECTADY, N. Y.

THESE Works are in full operation in Manufacturing to order, Locomotive Steam Engines & Tenders, of the best principle and construction of material, using wrought iron heavy frames with pedestals welded thereto, and all parts of the engine made of the best wrought iron, except cylinders, pumps and boxes—obtaining greater durability, and carrying less weight over the road, than engines constructed of cast iron.

Wrought Iron Tires made any required size, and Tire Bars bent and welded with dispatch.

Chilled Wheels for Cars, Tucks and Tenders, made from the toughest iron.

Driving and Tender and Car Wheels fitted to Axles with Brass Boxes and Springs, and Railroad Machinery generally. Manufactured and for sale by

E. S. NORRIS.

April 11, 1849.

Hydraulic Cement.

KINGSTON LIME AND CEMENT CO.
OFFICE
271 PEARL-ST.
N. Y.

HYDRAULIC CEMENT, OF BEST QUALITY, manufactured at their works, for sale in lots to suit purchasers.

Also, Ground Lime, a superior article for Builders.

ISAAC FRYER, Sec'y.

January 19, 1850. 1y

Engine and Car Works,
PORTLAND, MAINE.

THE PORTLAND COMPANY, Incorporated August 8th, 1846, with a capital of $250,000, have erected their extensive Works upon the deep water of Portland Harbor, and receive and transport, to and from their works direct, to and from vessels of any class.

They now manufacture to order, and deliver upon the Railroads running in each direction from the city, or on shipboard as wanted, Locomotive, Stationary, or Steam Boat Engines; Passenger, Mail, Freight, Earth and Hand Cars; Railway Frogs, Switches, Chairs and Castings; and every other description of Machinery.

HORACE FELTON,
Superintendent.

JAMES C. CHURCHILL,
General Agent and Clerk.

RAILROADS.

EASTERN RAILROAD.

WINTER ARRANGEMENT.

On and after Monday, October 8, 1849, trains leave Boston daily (Sundays excepted);

For Lynn, 7, 8½, 10 a.m., 12½, 2½, 4, 4½, 6½, p.m.
Salem, 7, 8½ 10, a.m., 12½, 2½, 4, 4½, 6½, p.m.
Manchester and Gloucester, 10 a.m., 4 p.m.
Newburyport, 7, a.m., 12½, 2½ 4½, p.m.
Portsmouth, 7, am., 2½, 4½, pm.
Portland, Me., 7, am., 2½, pm.

And for Boston,

From Portland, 8½ am., 4 pm.
Portsmouth, 7, 40½*, am., 6½*, pm.
Newburyport, 7½, 11½*, am., 3½ 7*, pm.
Gloucester, 7½, am., 1½pm.
Manchester, 8 am., 2 pm.,
Lynn, 7½, 8½*, 9½*, 10½ am., 12 55*, 2½* 4½* 8½* pm.
Salem, 7½, 8½*, 9*, 10½ am., 12 40*, 2½* 4½,* 8*, pm.

* *Or on their arrival from the East.*

Freight trains each way daily. Office 17 Merchants' Row, Boston.

Feb. 3. JOHN KINSMAN, Superintendent.

ALBANY AND BUFFALO RAILROADS.—Four Trains daily, Sundays excepted, viz: Leave Albany, 6 a.m., 9 a.m., 2 p.m., 7 p.m. Reach Buffalo, 15 hours, 18 hours, 23 hours, 18 hours. Arrive from Buffalo, 7 p.m., 2½ a.m., 12½ m., 3½ p.m.

Passengers by the *Express Train* reach Buffalo from New York, and New York from Buffalo, in 24 hours. The Isaac Newton and Oregon connect at Albany with this Train. Baggage cars, with careful baggage masters, run through with all the trains.

For Schenectady, Saratoga Springs & Whitehall, Leave Albany at 7 a.m. and 2 p.m. For Schenectady only at 6, 7 and 9 a.m. and 12½, 2 and 7 p.m. For Erie Canal packets at 7 a.m. and 7 p.m. By Plank Road from Schenectady to Saratoga at all hours by stages, etc.

The *Eastern Trains* leave Albany at 7 a.m. and 3 p.m. The wagons of the company take baggage *free* between railroads and steamboats at Albany.

E. FOSTER, Jr., Sec'y
Albany and Schenectady Railroad Co.

Albany, August, 1849.

BOSTON AND MAINE RAILROAD,

Winter Arrangement, 1850.
Outward Trains from Boston

For Portland at 7 am. and 2½ pm.
For Rochester at 7 am., 2½ pm.
For Great Falls at 7 am., 2½, 3½ pm.
For Haverhill at 7 and 9½ am., 2½, 3½, 5½, pm.
For Lawrence 7, 7½, 9½ am., 12m. 2½, 3½, 4½ 5½, pm.
For Reading 7, 9½ am., 12m. 2½, 3½, 4½, 5½, 7½, 9½ pm.
For Medford 7½, 9½ a.m., 12½, 2½, 5, 6½, 9½ p.m.
The Station in Boston is on Haymarket Square.

CHAS. MINOT, Sup't.

January 10, 1850.

NEW YORK AND HARLEM RAILROAD.
NEW ARRANGEMENT.

On and after Wednesday, October 17th, 1849, the Cars will run as follows, (Sundays excepted) until further notice:

Trains will leave the City Hall, New York, for—

Harlem and Morrisania at 6½, 8, 10, 11, 12 am., 2, 3½, 4, 5, 6½ pm.
New Village, at 8½, 10, 12 am., 3½, 5, 6½ pm.
Fordham and Williams' Bridge, at 8½, 10, 12 am., 2½ 3½, 5, 6½ pm.
Hunt's Bridge, Underhill's and Hart's Corners, at 8½, 10 am., 3½, 5 pm.
Tuckahoe and White Plains, at 8½, 10 am., 2½, 3½, 5 pm.
Pleasantville, New Castle, Bedford, Mechanicsville, Purdy's, Croton Falls, and intermediate stations, on signal, 8½ am., 2½, 3½ pm.
Brewster's, Towner's, Patterson, Paulding's, South Dover, Dover Furnace, and Dover Plains, 8½ am., 2½ pm.

NOTICE—Passengers are reminded of the great danger of standing upon the platform of the cars, and hereby notified that the practice is contrary to the rules of the Company, and that they do not admit any responsibility for injury sustained by any passenger upon the platforms, in case of accident.

Returning to New York will leave

Harlem and Morrisiana at 6 08, 7½, 8 37, 9, 10 6, 12 am., 1 43, 3 07, 3½, 5, 5 47 pm.
New Village, at 5 58, 8 27, 9 56 am., 1 33, 2 57, 5 36 pm.
Fordham and William's Bridge at 5½, 8 14, 9 43, 10 57 am., 1 20, 2 44, 5 24 pm.
Hunt's Bridge at 8 04, 9 33 am., 2 34, 5 16 pm. On signal.
Underhill's, at 7 56, 9 23 a.m., 2 26, 5 10 p.m. On signal.
Tuckahoe at 7 53, 9 18, 10 40 am., 2 23, 5 08 pm.
Hart's Corners at 7 38, 9 03 am., 2 08, 4 54 pm.—On signal.
White Plains at 7½, 8 55, 10 20 am., 2, 4 47 pm.
Davis' Brook at 8 40, 10 11 am., On signal. 4 39 pm. On signal.
Unionville, 8 27, 10 11 am. On signal. 4 29 pm.—On signal.
Pleasantville at 8 20, 9 56 am., 4 24 pm.
Champaqua, at 8 10, 9 50 am. On signal. 4 18 pm. On signal,
New Castle, at 7 56, 9 38 am.. 4 07 pm.
Bedford at 7 46, 9 32 am., 4 02 pm.
Mechanicsville at 7 36, 9 22 am., 3 52 pm.
Golden's Bridge, 7 28, 9 17 am. On signal, 3 47 p m. On signal.
Purdy's at 7 20, 9 09 am., 3 39 pm.
Croton Falls, at 7½, 9 04 am.,3 34 pm.
Brewster's, at 8 50 am., 3 20 pm.
Towner's, at 8 35 am., 3 05 pm.
Paterson, at 8 27 am., 2 57 pm.
Paulding's, at 8 17 am., 2 47 pm.
South Dover, 8 02 am., 2 32 pm.
Dover Furnace, 7 55 am., 2 25 pm.
Dover Plains, at 7 45 am., 2 15 pm.

The trains for Harlem and Morrisiana leaving City Hall at 6½, 8, 10, 11, 12, 2, 4 and 6½, returning from Morrisiana and Harlem at 6 08, 7½, 9, 12, 1 43, 3 07, 3½ and 5 o'clock, will land and receive passengers at 27th 42d, 51st, 61st, 79th, 86th, 109th, 115th, 125th and 132d streets.

The Dover Plains train from New York at 2½ pm., returning leaving Dover Plains at 7½ am., will not stop between White Plains and New York, (except at Tuckahoe, Williams' Bridge and Fordham,) unless to leave passengers coming from above Croton Falls.

A car will precede each train ten minutes to take up passengers in the city. The last car will not stop, except at Broome st. and 27th street.

Freight Trains leave New York at 1 o'clock pm.—Returning, leaves Dover Plains at 12 o'clock m.

For Sunday Aarrangements, see hand bills.

M. SLOAT, Sup't.

NEW YORK AND ERIE RAILROAD. OPEN TO ELMIRA.

On and after the 8th of October, the trains will run as follows, (Sundays excepted):

THROUGH PASSENGER TRAINS from New York to Elmira, will leave the Company's Pier at the foot of Duane street, at 7 o'clock a.m. and 5 o'clock p.m. stopping at all the way stations.

From Elmira the through trains will leave for New York at 5 o'clock a.m. and 6½ p. m., stopping also at all the way stations.

A SPECIAL WAY TRAIN, for Port Jervis and intermediate stations, except Sufferns, will leave New York every Saturday at 3 p. m., and will leave Port Jervis for New York every Monday morning, at 4 55 o'clock.

A MILK TRAIN, with Passenger Cars attached, will leave Port Jervis for New York at 3 o'clock a.m. and returning will leave New York for Port Jervis at 3 p.m. Another milk train with passenger car, will leave Piermont for Otisville at 9 am., and returning leave Otisville at 4 55 p.m., connecting with the freight boats to New York. The milk trains do not connect with the P. and R. railroad.

FREIGHT.—Freight leaves New York every night for all the regular stations on the road. A freight train will leave Elmira every morning at 3 20 o'clock a.m. —A freight train will leave Port Jervis for New York every morning at 5 o'clock, and another at 8 a.m. with market freights.

A Special Train for cattle and other live stock, will leave Elmira on Tuesdays and Fridays at 12 20 p.m.; and from Port Jervis, for New York, on Wednesdays and Saturdays, at 8 40 a.m.

FARE from New York to Elmira $5 75. The intermediate stations in proportion.

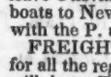
COMMUTATION TICKETS, at lower rates, for the stations between New York and Port Jervis, can be purchased at the New York and Piermont offices.

The Steamboat ERIE leaves New York for Piermont every day at 3 o'clock, and returns on the arrival of the train from Elmira, arriving at New York at about 7½ p.m.

JAMES P. KIRKWOOD, Superintendant.

GEORGIA RAILROAD. FROM AUGUSTA TO ATLANTA—171 MILES.

AND WESTERN AND ATLANTIC RAILROAD, FROM ATLANTA TO DALTON, 100 MILES.



This Road, in connection with the South Carolina Railroad, and Western and Atlantic Railroad, now forms a continuous line, 408 miles in length, from Charleston to Dalton Cross Plains) in Murray county, Ga. 32 miles from Chattanooga, Tenn.

RATES OF FREIGHT.		Between Augusta and Dalton. 271 miles.	Between Charleston, and Dalton. 408 miles.
1st class	Boxes of Hats, Bonnets, and Furniture, per cubic foot - -	$0 18	$0 28
2d class	Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs, and Confectionary, per 100 lbs.	1 00	1 50
3d class	Sugar, Coffee, Liquor, Bagging, Rope, Cotton, Yarns Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow ware, Castings, Crockery, etc.	0 60	0 85
4th class	Flour Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc. - - -	0 40	0 65
	Cotton, per 100 lbs. -	0 45	0 70
	Molasses per hogshead -	8 50	13 50
	" " barrel - -	2 50	4 25
	Salt per bushel - -	0 18	
	Salt per Liverpool sack -	0 65	
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows - -	0 75	1 50

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Company will be forwarded free of commissions. Freights payable at Dalton.

F. C. ARMS,
44*1y Sup't of Transportation.

LITTLE MIAMI RAILROAD.—SUMMER ARRANGEMENT.

CINCINNATI & SANDUSKY.

FIRST Passenger Train leaves Depot on East Front street, at 5 o'clock 10 minutes A. M. stops for breakfast at Morrow, and arrives at Springfield at 11 10 A. M. Leaves Springfield for Sandusky at 11 50 A. M.

Second Passenger Train leaves Depot 3 P. M. arrives at Springfield at 9 P.M. Passengers take tea at Springfield, and leaves for Sandusky at 9½ P. M.

RETURNING—First Train leaves Springfield at 4 A. M. Stop for breakfast at Xenia, and arrives at Cincinnati at 10 15 A. M.

Second Train leaves Springfield at 2½ P. M. Stop for tea at Morrow, and arrives at cincinnati, at 8½ P. M.

Passengers taking the Morning Train arrive at Sandusky at 9 P. M. Those taking the Afternoon Train arrive at 7½ A. M. next morning, and proceed directly on in the boats.

Passengers for columbus, Zanesville, Wheeling, and intermediate towns, should take the 5, 10 A. M., Train.

The Ohi Stage Company are running the following Lines in connection with the Trains:

A Daily Daylight Line to Columbus from Springfield in connection with the Morning Train from Cincinnati. Also, Daily Lines to Columbus, from Xenia and Springfield, connecting with the 3 o'clock, pm. Train from Cincinnati.

Fare from Cincinnati to Xenia	-	-	$1 90
Do	do	Springfield -	- 2 50
Do	do	Sandusky City -	6 50
Do	do	Buffalo -	- 10 00
Do	do	Columbus -	- 4 50

For other information and through tickets, apply at the Ticket Office on Broadway, near Front-st., Cincinnati.

W. H. CLEMENT, Superintendent.

☞ The Company will not be responsible for Baggage exceeding 50 dollars in value, unless the same is returned to the Conductors or Agent, and freight paid at the rate of a passage for every 500 dollars in value above that amount.

PHILADELPHIA, WILMINGTON, & BALTIMORE RAILROAD.

Summer Arrangement.
April 1st, 1849.—Fare $3.

Leave Philadelphia 8½ am., and 10 pm.
Leave Baltimore 9 am, and 8 pm.
Sunday—Leave Philadelphia at 10 pm.
" " Baltimore at 8 pm.
Trains stop at way stations.

Charleston, S. C.
Through tickets Philadelphia to Charleston, $20.

Pittsburg and Wheeling.
Through ticket, Philadelphia to Pittsburg, $12.
" " Wheeling, 13.
Through tickets sold at Philadelphia office only.

Wilmington Accommodation.
Leave Philadelphia at 12 m. 4 and 7 pm.
Leave Wilmington at 7½ am., 4½ and 7 pm.

Newcastle Line.
Leave Philadelphia at 2½ pm.—Baltimore at 1½ pm
Fare $3.—Second class, $2.
N.B.—Extra baggage charged for.

I. R TRIMBLE, Gen. Supt.

BALTIMORE AND SUSQUEHANNA RAILROAD.—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger Trains run daily, except Sundays, as follows:

Leave Baltimore at - - -	9 am. and 3½ pm.
Arrive at - - - - -	9 am. and 6½ pm.
Leave York at - - - -	5 am. and 3 pm.
Arrive at - - - - -	12½ pm. & 8 pm.
Leave York for Columbia at	- 1½ pm. & 8 am.
Leave Columbia for York at	- 8 am. & 2 pm.

Fare:

Fare to York - - - -	$1 50
" Wrightsville - - - -	2 00
" Columbia - - - -	2 12½

Way points in proportion.

PITTSBURG, GETTYSBURG, AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg - - - - - -	$9
Or via Lancaster by railroad - - -	10
Through tickets to Harrisbnrg or Gettysburg -	3

In connection with the afternoon train at 3½ o'clock, a horse car is run to Green, Spring and Owing's Mill, arriving at the Mills at - - 5½ pm.
Returning, leaves Owing's Mills at - - 7 am.

D. C. H. BORDLEY, Sup't.
31 1y Ticket Office, 63 North st.

PHILADELPHIA & READING RAILROAD. Passenger Train Arrangement for 1848.

A Passenger Train will leave Philadelphia and Pottsville daily, except Sundays, at 9 o'clock am.

The Train from Philadelphia arrives at Reading at 12 18 m.

The Train from Pottsville arrives at Reading at 10 43 am.

Fares.	Miles.	No. 1.	No. 2
Between Phila. and Pottsville,	92	$3.50 and	$3.00
" " Reading	58	2.25 and	1.90
" Pottsville "	34	1.40 and	1.20

Five minutes allowed at Reading, and three at other way stations.

Passenger Depot in Philadelphia corner of Broad and Vine streets. 8tf.

BALTIMORE AND OHIO RAILROAD AND WASHINGTON BRANCH.

On and after January 1, 1850, Passenger Trains will run as follows:

Leave Baltimore for Ellicott's Mills, Frederick, Harper's Ferry, Martinsburg, Hancock and Cumberland, every morning at 7½ o'clock. This line carries the Great Mail, and connects with Post Coaches at Cumberland, for Wheeling and Pittsburg, over the National Road. Also with the Winchester Trains, at Harper's Ferry. N.B.—Passengers for Pittsburg take the steamers of the Monongahela slack water navigation at *Brownsville*, only 76 miles from Cumberland.

Leave Baltimore for Ellicott's Mills, Frederick and Harper's Ferry, daily, except Sunday, at 4½ p.m.

Leave Baltimore for Washington City, daily, at 6 a.m. and 5 p.m.—daily, except Sunday, at 9 a.m. The early train connects with the Great Southern Line, via Fredericksburg and Richmond, to Charleston.

Leave Cumberland for Baltimore, etc., at 8½ a. m., daily, connecting with the train from Winchester at Harper's Ferry—with the Evening Train to Washington City, at the Relay House—and with the Evening Train to Philadelphia, at Baltimore. Time for arriving at Baltimore, 5½ p.m.

Leave Harper's Ferry for Baltimore, daily, except Sunday, at 7½ a. m—taking in Passengers who leave Frederick at 8½ a.m.

Leave Washington for Baltimore, daily, at 6 a.m. & 5½ p.m., and *daily, except Sunday*, at 9½ a. m. The early train connects at the Relay House with the morning line to Cumberland and the West, and at Baltimore with the day line to Philadelphia and New York.

Through tickets are sold at *Philadelphia and Baltimore* for Pittsburgh and Wheeling, and at *Philadelphia and New York* for Charleston, S. C., at the following

RATES OF FARE.

	To Pittsburg. In winter.	Summer.	Wheeling. Win.	Sum.	Charleston.
From Philadelphia,	$13	$12	$14	$13	$20
" Baltimore,	11	10	12	11	
" New York,	.	.	.	.	20

Passengers leaving New York not later than the afternoon line via Newark, etc., reach Baltimore in season to take the next morning's lines to the South and West.

Passengers leaving Cumberland in the morning and Washington in the evening lines, reach Baltimore in season to proceed to Philadelphia by the evening train at 8 p. m.—so as to reach New York before noon the next day.

An Emigrant line by burthen cars, leaves Baltimore every morning, except Sundays, at 4 o'clock—connecting with a line of the previous day from N. York —and at Cumberland with a wagon line to Pittsburg or Brownsville and Wheeling. Fare by this line:

From New York to Pittsburg,	$8 00
" Philadelphia "	6 50
" Baltimore "	5 00

By order, J. T. ENGLAND, Agent.

SOUTH CAROLINA RAILROAD.—A Passenger Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection with trains on the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tuscumbia Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily - - - - - $26 50

Fare through from Charleston to Huntsville, Decatur and Tuscumbia - - - 22 00

The South Carolina Railroad Co. engage to receive merchandize consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic Railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.

JOHN KING, Jr., Agent.

LAKE SUPERIOR LINE.
Cleveland and Detroit,

TO

SAULT STE. MARIE, CARP RIVER, COPPER HARBOR, EAGLE RIVER, ISLE ROYAL, ONTONAGON AND LA POINT.

The Proprietors of this line having added largely to their facilities for transportation on this route, will be prepared to ship Goods to any part of Lake Superior during the coming season, and contract for the delivery of Copper Ore to either Boston, New York, or Pittsburg, being connected with the Troy and Western Line, from Detroit to New York, and a Daily line of Canal Boats

FROM CLEVELAND TO PITTSBURG.

Lakes Huron and Erie.

For this portion of the route, the Proprietors are fitting up a large Boat, with a powerful low pressure engine, and a spacious upper cabin, with state rooms, to take the place of the Franklin, which will leave CLEVELAND every *Monday Evening* at 7 o'clock, and DETROIT every *Tuesday Afternoon* at 2 o'clock, going to MACKINAW and the BRUCE MINES, and arriving at SAULT STE. MARIE on Thursday morning. The Franklin will leave Detroit every Friday for Mackinaw and Sault Ste. Marie, via the Bruce Mines. For the transportation of heavy masses of *Copper*, a Propeller will make trips as occasion may require.

Lake Superior.

Mr. McKnight, one of the Proprietors, is constructing a Wharf to the Channel Bank, at the head of the Portage, which will enable them to load their Propellers, NAPOLEON AND INDEPENDENCE, with but 24 hours' detention at Sault Ste. Marie. One of the Propellers will leave every *Friday*, making a trip through the Lake, touching at Carp River, Ontonagon and Isle Royal.

The great expense incurred in building wharves to facilitate business, it is hoped, will entitle the Proprietors of this Line to Patronage. Goods shipped by either G. WILLIAMS & CO., or S. P. BRADY, Agents, Detroit, will be receipted through to their destination on Lake Superior. Letters addressed to S. McKNIGHT, Detroit, or Sault Ste. Marie, will receive attention. Supplies will be purchased and delivered at any point on Lake Superior, on the best possible terms, and all orders filled with articles of as good quality as the market affords.

Canada Line.

To facilitate the forwarding of Goods for the Canada Companies, a connection has been made with PARK & CO., managing owners of the Propeller *Earl Cathcart*, forming a direct line from Montreal to the Bruce Mines and Sault Ste. Marie. Goods sent by this line, care of PARK & CO., Amherstburg, or CHAS. HUNT, Esq., Windsor, will be immediately forwarded, and at prices decidedly to the advantage of parties in Toronto or other Canadian Ports.

S. M'KNIGHT,
J. R. LIVINGSTON,
P. B. BARBEAU.

January, 1850.

AGENTS.

G. Williams & Co., } Detroit.
S. P. Brady, }
P. L. Sternberg & Co., Buffalo.
Charles Hunt, Windsor.
Park & Co., Amherstburg.
W. A. Otis & Co., } Cleveland.
Crawford and Chamberlain, }
Rice, Clapp & CO., New York.
W. M. Gorrie, Toronto.

MACHINE WORKS OF ROGERS KETCHUM & GROSVENOR, *Patterson, N. J.* The undersigned receive orders for the following articles manufactured by them of the most superior description in every particular. Their works being extensive, and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and dispatch.

Railroad Work.—Locomotive Steam Engines and Tenders; Driving and other Locomotive Wheels, Axles Springs and Flange Tires; Car Wheels of Cast Iron a variety of patterns and chills; Car Wheels of Cast Iron with wrought tires; Axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and millwright work generally, hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,
Patterson, N.J. or 74 Broadway, New York.

CENTRAL RAILROAD FROM SAVANNAH TO MACON, (Ga.) 190¼ miles.

Passenger Trains leave Savannah and Macon daily at 7 a.m.

Passenger trains arrive daily at Savannah, 6 15 p.m.
" " " " Macon, 6 45 p.m.

This road, in connection with the Macon and Western road from Macon to Atlanta, and the Western and Atlantic road from Atlanta to Dalton, now forms a continuous line of 391¼ miles in length* from Savannah to Dalton, Murray county, Ga. and with the Memphis Branch railroad, and Stages connect with the following places:

Tickets from	Savannah	to	Macon,	$5 75
"	"	"	Atlanta,	9 50
"	"	"	Augusta,	6 50
"	"	"	Columbus,	15 00
"	"	"	Opelika,†	17 00
"	"	"	Jacksonville, Ala.,	20 00
"	"	"	Talladega, }	
"	"	"	Huntsville } Ala.,	22 00
"	"	"	Decatur, }	
"	"	"	Tuscumbia, Ala.,	22 50
"	"	"	Tuscaloosa, Ala.,	
"	"	"	Columbus, Miss, }	
"	"	"	Aberdeen, " }	28 00
"	"	"	Holly Springs	
"	"	"	Nashville, Tenn. }	
"	"	"	Murphreesboro' }	25 00
"	"	"	Columbia, do., }	
"	"	"	Memphis, do.,	30 00

An extra Passenger Train leaves Savannah on Saturdays, after the arrival of the Steam-ships from New York, for Macon, and connects with the Macon and Western railroad; and on Tuesdays, after the arrival of the Macon and Western cars, an extra Passenger Train leaves Macon to connect with the Steam ships for New York.

Stages for Tallahasse and intermediate places connect with the road at Macon, Mondays, Wednesdays, and Fridays, and with Milledgeville at Gordon daily.

Passengers for Montgomery, Mobile and New Orleans take stage for Opelika from Barnesville through Columbus, a distance of 97 miles, or from Griffin thro' West Point, a distance ot 93 miles.

* The Western and Atlantic railroad will soon be completed between Dalton and Chattanooga, a distance of 423¼ miles from Savannah, of which due notice will be given.

† Head of the West Point and Montgomery railroad, on which the fare to Montgomery is about $2.

RATES OF FREIGHT FOR MERCHANDIZE GENERALLY, FROM SAVANNAH TO MACON.

Measurement Goods.—Boxes of hats, bonnets, furniture, shoes, saddlery, dry-goods, and other measurement goods, per cubic foot - - 13 cents.
Crockery Ware, in crates, boxes or hhds, per cubic foot. - - - - 10 "
Goods by Weight, 1st class.—Boxes of glass, paints, drugs & confectionary, per 100 lbs., 50 "
2d class—Sugar, coffee, rope, butter, cheese, lard, tobacco, leather, hides, copper, sheet and hoop iron, tin, hard and hollow ware, rice, boxes soap and candles, bagging, and other heavy articles not enumerated below, per 100 lbs., - - - - 45 "
3d class—Flour, bacon, liquors, pork, beef, fish, tallow and beeswax, per 100 lbs., 40 "
4th class—Mill-gearing, pig and bar iron, grind and millstones, nails, spikes and coal, 100 lb. 30 "
Barrels of beets, bread, crackers, potatoes, ice, fruit, oysters, onions, and all light bbls, each, 75 "
Oil and molasses per hhd., (smaller casks in proportion) - - - $6 00 "
Salt per sack not exceeding 4 bushels, - 50 "

☞ Goods consigned to Thos. S. Wayne, Forwarding Agent, Savannah, will be forwarded free of commission. WM. M. WADLEY, Supt.

Savannah, Ga., February 24, 1850.

ENGINEERS' AND SURVEYERS'
INSTRUMENTS MADE BY
EDMUND DRAPER,
Surviving partner of
STANCLIFFE & DRAPER.

No 23 Pear street, near Third, below Walnut, Philadelphia.

GREAT NORTHERN & SOUTHERN MAIL ROUTE. From New York to Charleston, S. C. daily, via *Philadelphia, Baltimore, Washington City, Richmond, Petersburg, Weldon and Wilmington, N. C.*

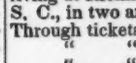
Travellers by this route, leaving New York at 4½ p. m., Philadelphia at 10 p.m., and Baltimore at 6 a.m., proceed without delay at any point on the route, arriving at Richmond, Va., in a day, and at Charleston, S. C., in two and half days from New York.

Through tickets from New York to Charleston, $20 00
" " Baltimore to Richmond, 7 00
" " " " Petersburg, 7 50

For tickets to Richmond and Petersburg, or further information, apply at the *Southern Ticket Office, adjoining the Washington Railroad Ticket Office, Pratt Street, Baltimore* STOCKTON & FALLS.

October, 1849.

ST. LAWRENCE & ATLANTIC RAILROAD COMPANY.



Notice is hereby given that the Trains run twice per day between

Montreal and St. Hyacinth, leaving each terminus alternately, until further notice.

Leaving St. Hyacinth at - - 7 am.
" " - - 3 pm.
Leaving Montreal at - - 10 am.
" " - - 6 pm.

THOMAS STEERS, *Secretary.*

May 31, 1849.

WESTERN AND ATLANTIC RAILROAD,
FROM ATLANTA, GA., TO CHATTANOOGA, TENN.
140 Miles.

PASSENGER SCHEDULE.

Leave Chattanooga daily, Sundays excepted, at 8½ a.m.
Arrive at Kingston . . . by 12 m.
" Dalton . . . by 3 p.m.
" Chattanooga . . . by 6 "
Leave Chattanooga daily, Sundays excepted, at 7 a.m.
Arrive at Dalton . . . by 9½ "
" Kingston . . . by 12 m.
" Atlanta . . . by 4 p.m.

The fare is now permanently reduced to *three* cents per mile for way as well as through Passengers; children and servants *two* cents per mile.

There are two Railroad routes from Atlanta to the Seaboard, viz: one by the Georgia Railroad to Augusta, and thence to Charleston by the South Carolina Railroad; the other by the Macon and Western Railroad to Macon, and thence to Savannah by the Central Railroad.

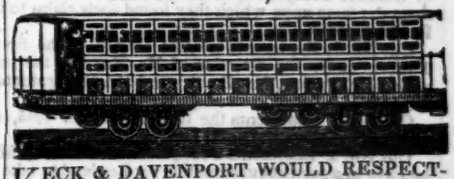
At Kingston, 60 miles north of Atlanta, the Rome Railroad branches off to Rome on the Coosa river, which admits of steamboat navigation as far down as Greensport in Ala. Mail stages are in operation from Rome leading towards Tuscaloosa, Ala., Columbus, Miss., Memphis, Tenn., etc.

At Dalton, 100 miles north of Atlanta, a line of stages branches off to Knoxville, Tenn., which will be superseded by the East Tennessee and Georgia Railroad as rapidly as the same is completed.

At Chattanooga a number of steamboats are in successful operation on the Tennessee river, and from that terminus of the road stages run to Nashville, which will be superseded by the Nashville and Chattanooga Railroad as rapidly as the same is completed.

WM. D. FULLTON, Supt. Transp.
Transportation W. & A. R. R., }
Atlanta, March, 1850. }

CAR MANUFACTORY
CINCINNATI, OHIO.



KECK & DAVENPORT WOULD RESPECTfully call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to different points speedy and economical. They are prepared to execute to order, on short notice, Eight-Wheeled Passenger Cars of the most superior description. Open and Covered Freight Cars, Four or Eight-Wheel Crank and Lever Hand Cars, Trucks, Wheels and Axles, and Railroad Work generally.

Cincinnati, Ohio, Oct. 2, 1848. 44tf

FOWLER M. RAY'S
METALLIC INDIA RUBBER CAR SPRINGS.

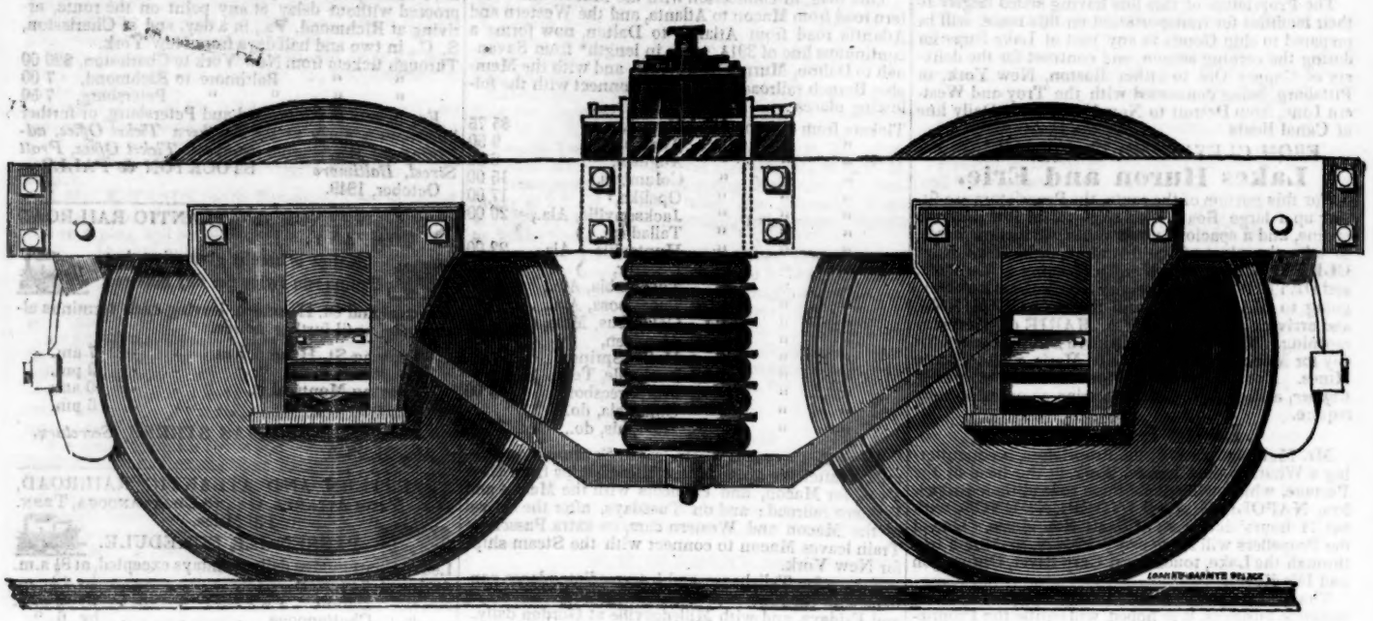


Fig. 1.

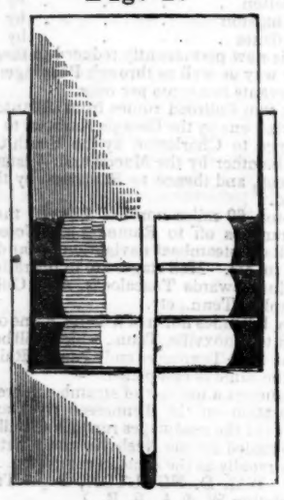


Fig. 2.

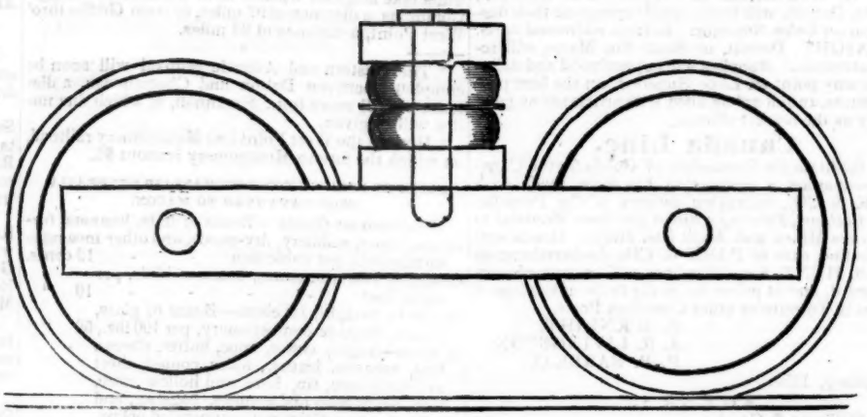
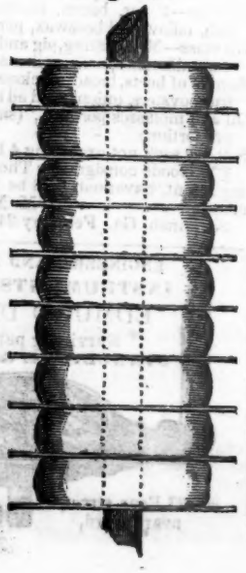


Fig. 3.



So much has been published for the purpose of misleading the public in regard to the inventorship of the India-rubber Railroad Spring, patented in the United States by Mr. W. C. Fuller, that the New England Car Company, proprietors of this invention, have deemed it proper, for the information of Railroad Companies, Car Builders and the public generally, to lay before them the facts upon which they found their claim to this invention, and to a Patent therefor.

Cut No. 1, Represents a cross section of the first model made by Mr. Tucker, under the direction of Mr. Ray, in the summer of 1844, and to which Mr. Tucker, Mr. Bradley and Mr. Bannester testify as being the model marked "B."

Cut No. 2, Represents the model made in 1845, to which Mr. Osgood Bradley and Gen. Thos. W. Harvey have testified.

Cut No. 3, Represents a rough sketch made by Mr. Ray in 1844, which he gave to a man about departing for England to take out some patents, who promised to write to Ray after his arrival in that country—which promise he has probably forgotten.

Mr. W. C. Fuller, of England, patented the above Spring in that country on the 23d October, 1845. He filed his enrollment April 23d, 1846, and on the 22d October, 1846, he took out a patent in the United States under the title, "For Improvement in Railway Carriages," when the improvement consisted in the spring, and not in the carriage.

The reader will perceive by the annexed testimony, that the India-rubber Railroad Car Spring was invented by Mr. Ray about two years previous to the date of Mr. Fuller's enrollment.

The Depositions are omitted for want of room, but will be published in full in the course of a few weeks.

AMERICAN RAILROAD JOURNAL.
PUBLISHED BY J. H. SCHULTZ & CO.
ROOM 12, THIRD FLOOR,
No. 136 Nassau Street,
NEW YORK.

TERMS.—Five Dollars a year, *in advance.*

RATES OF ADVERTISING.

One page per annum	$200 00
One column "	75 00
One square "	20 00
One page per month	25 00
One column "	10 00
One square "	3 00
One page, single insertion	10 00
One column " "	4 00
One square " "	1 50
Professional *Cards* per annum	5 00

☞ LETTERS and COMMUNICATIONS to this Journal may be directed to the *Editor*,
HENRY V. POOR,
136 NASSAU STREET.